

# Lull and Bruno

Frances A. Yates

Selected Works of Frances Yates

Volume VIII



FRANCES YATES

SELECTED WORKS

FRANCIS & TAYLOR

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FRANCES YATES  
Selected Works

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FRANCES YATES

Selected Works

Volume VIII

*Lull and Bruno*



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*Frances A. Yates*

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# LULL & BRUNO

COLLECTED ESSAYS

VOLUME I

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## PREFACE

FRANCES YATES DIED after a brief illness, early on the morning of 29 September 1981, at the age of nearly eighty-two. Some months before she fell ill, she had prepared this volume, intended as the first of several reprinting the masterly essays, most of them published first in the *Journal of the Warburg and Courtauld Institutes*, she had written during a remarkable career of single-minded and passionate scholarship. This book is the last to contain prefaces by Dame Frances, placing the essays both in her own oeuvre and in the synthesis of Renaissance thought to which she had devoted her life. She had already attended to the political dimension in her *Astraea: The Imperial Theme in the Sixteenth Century* (1975), which is built round her great study of 'Queen Elizabeth as Astraea'. That essay was, with her book on *The French Academies of the Sixteenth Century* (1947), the peak of her achievement in her forties. (Themes from the two were taken up again in *The Valois Tapestries* (1959; second edition 1975).) The essays here reprinted are the first sketches, dating from 1939 to 1960, for the grand design of *Giordano Bruno and the Hermetic Tradition* (1964). They contain much material not used in that book, however, and they also look forward to the other superb achievement of Frances Yates's seventh decade, *The Art of Memory* (1966). With these two books she at last attained in the wider world the deserved reputation she had long held among Renaissance specialists.

The studies reprinted here demonstrate not only the range of their author's learning but her determination to go to the root of a

## PREFACE

problem. In order to understand the thought of Giordano Bruno, Dame Frances found it necessary to investigate the role of Lullism in the Renaissance and this led her back three centuries to the origins of the Art of Ramon Lull. The first two articles in this volume took her into a region of European thought that, in the 1950s, was virtually unknown to scholars outside Spain. Even in Spain the study of Lull's works had been mainly confined to those (a minority) preserved in Catalan and had been concentrated on Lull's poetry and novels, seen in virtual isolation. The fact that the Lullian Art and philosophy were at the heart of all Lull's writings had been perceived by very few scholars. It is characteristic of Dame Frances that she set out, undaunted by the lack of guides, to explore the 'huge unclimbed mountain' of Lullian thought.

The first article here, by its discovery of the cosmological basis of Lull's philosophy, especially his elemental theory, placed him squarely in an intelligible intellectual tradition. Not satisfied with having thus 're-opened the problem of Lull and his Art', Dame Frances went on (in the second article here) to suggest a source for the Art's most striking feature, the connexion between the divine attributes and the elemental theory. This she found in the great Irish philosopher of the ninth century, John Scotus Erigena. The revelation that Lull not only drew on the general Neoplatonic tradition but on the mystical version of Neoplatonism represented by Erigena goes far to explain his attraction for such Renaissance thinkers as Giordano Bruno, in whom Neoplatonic ideas are combined with Hermeticism and Cabalism. Dame Frances has acknowledged that writing her two articles on Lull was 'the hardest task I have ever undertaken'. The task proved worthwhile. Erigena, Lull and Bruno, often viewed as isolated figures in the history of ideas, were illuminated anew by being seen as linked in a coherent line of development.

Because of her book, *Giordano Bruno and the Hermetic Tradition*, Dame Frances's work on Bruno is far more widely known than her articles on Lull. The four last studies collected here illustrate her investigations of Bruno over a span of some forty years, from 1939 to 1981, though her interest in the Italian magus goes back to her own scholarly beginnings, in the mid-1920s. They chart a 'reversal of images' which has transformed the standard picture of Bruno as a martyr for the liberty of conscience or the advance of science into a man who died for 'Renaissance occult philosophy and magic'. The last article, in its discussion of the relation between Bruno and Dee, is characteristic of its author in that it seeks to make the reader

## PREFACE

aware how many vital questions still remain to be answered. For Dame Frances there was no such thing as a definitive statement of a problem. For her one question led on to another and there were always new intellectual discoveries to be made.

Dame Frances did not live to read the proofs of this volume, which has therefore been seen through the press by the undersigned. As admirers of Dame Frances they have attempted to edit these essays in the way she would have done. They hope to ensure that further volumes of *Collected Essays* will appear. They know that Dame Frances wished to acknowledge her debt to D. P. Walker in particular, and to Joanna Harvey-Ross, as well as to her publishers. To these they are also grateful, as well as to Anne Marie Meyer for indispensable help and to Judith Wardman for making the index and for incidental vigilance with the proofs.

J. N. Hillgarth  
J. B. Trapp

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ESSAYS ON  
THE ART OF  
RAMON LULL

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## INTRODUCTION

IN ABOUT 1949 I began to work on what I hoped would be a book on Giordano Bruno, making abstracts of his Latin works. In these I found many references to Ramon Lull, and resolved that I must investigate Lull before going further with Bruno. On the advice of Ivo Salzinger in the first volume of his edition of Lull's Latin works, the famous Mainz edition of 1721-42, I began with Lull's *Tractatus novus de astronomia*. It seemed perfectly unintelligible. There were many circles and other diagrams, labelled with letters of the alphabet. One learned that BCDEFGHIK stood for the Dignities, or Attributes of God, Bonitas, Magnitudo, Eternitas, Potestas, Sapientia, Voluntas, Virtus, Veritas, Gloria (Goodness, Magnitude, Eternity, Power, Wisdom, Will, Strength, Truth, Glory). Most of these divine attributes, or Names of God, were familiar from the Bible. Was the book, then, some kind of pious meditation, turning the Divine Names on the prayer wheels of the Art of Ramon Lull? All Lull's immensely complex Arts have one procedure in common: they revolve BCDEFGHIK (or sometimes sixteen letters) on circles or wheels.

There are other letters, of, apparently, equally serious importance, the letters ABCD, to be used somehow in combination with B to K. With endless repetition the reader is informed that these represent the four elements: Aer (Air), Ignis (Fire), Terra (Earth), Aqua (Water). There must therefore be some kind of cosmological meaning in the Art, though it was difficult to understand how the Elements were supposed to work in connection with the Attributes.



## ESSAYS ON THE ART OF RAMON LULL

Finally, most baffling of all. Why was the work entitled 'A New Treatise on Astronomy'?

I struggled with these problems in the articles here reprinted, the writing of which was the hardest task I have ever undertaken. The severe ordeal of battling with Ramon Lull may be reflected in a certain rigidity in the style of the articles.

Both articles are concerned with what I have called Lull's Elemental Theory. The first article begins by abstracting and examining the elemental theory, from the *Tractatus novus de astronomia*, and then goes on to prove that the theory underlies all Lull's work. He believed that he had found a way of calculating from the fundamental patterns of nature, an Art which could be applied, by analogy, to all the arts and sciences. We can calculate the workings of virtues and vices by analogy, with the elemental pattern and its system of *devictio*. The logical square of opposition is shown to have the same pattern as the square of the concords and contrasts of the elements. Lull believed that he is doing in the Art a 'natural' logic, a fundamental logic based on reality. Through this, and through the elemental analogies, he can do all arts and sciences by the Art; he can ascend the ladder of being and understand the nature of God. Finally, and this was its most important aspect in his eyes, by the Art he can convert Jews and Moslems by proving to them the truth of the Christian Trinity.

Lull was a tremendous system-builder. He built his systems, so he believed, on the elemental patterns of nature, combined with the divine patterns formed by the Dignities, or divine attributes as they revolved on the combinatory wheels. For the Lullian Art is always an *Ars combinatoria*. It is not static, but constantly moves the concepts with which it is concerned into varying combinations.

I was not satisfied with the first article, for it left unsolved a basic problem about the Lullian art. How do the divine Dignities, *Bonitas*, *Magnitudo* and the rest, the attributes of God with which Lull begins each Art – how do they connect with the elemental theory? Whence did Lull derive his conviction that these Dignities are directly connected with the Elements and with the stars – the seven planets and the twelve signs of the zodiac – whence they descend through all creation? A source for such ideas was missing.

One day when reading an article by Marie-Thérèse d'Alverny on *Le cosmos symbolique du douzième siècle* I saw the miniature which is used to illustrate the second article (Pl. 16). The miniature is an illustration in a twelfth-century work the author of which is presenting the system of the universe set forth by the ninth-century

## INTRODUCTION

Irishman John Scotus Erigena in his extraordinary work *De divisione naturae*. Scotus sees the whole of nature as proceeding from what he calls the primordial causes, named as *Bonitas* and other divine attributes. The Scotist primordial causes are creative. They pour their creative power into chaos, a first stage of creation in which the elemental essences emerge as intermediaries between the Creator and His creation.

This is what we see in the miniature with its crude personifications of the Causes, and its schematic attempt to present their creative power through the intermediary of the elements.

I was electrified when I saw this miniature, which is immediately translatable into Lullian terms. There are his Dignities as creative primordial causes, immediately in contact with his Elements as intermediaries between the divine Causes and creation.

The second article here reprinted deals with the influence of the philosophy of Scotus Erigena on the Art of Ramon Lull. There was an interval of five years between the publication of the two articles, which therefore did not make a joint impact. In the first article I saw the basic importance of Dignities and Elements for Lull's thought, but I did not know that his Dignities were creative primordial causes, and his Elements the first effect of their creative power. This explains the prime importance of the Elemental Figures in Lull's Art.

The Elements, in their various manifestations on every level of creation, are fundamental forces on all these levels. Lull groups the stars – the seven planets and the twelve signs of the zodiac – in accordance with their elemental affinities and labels them A, B, C or D. Lull can claim that his *Tractatus de astronomia* is not astrological in the ordinary sense. I have called it 'elemental astrology', calculating astral influences through abstracting the elemental affinities in signs and planets. In this way the astrological images are avoided, their influences expressed through abstract letters. Lull's Art tends to total abstraction. The Divine Dignities are reduced to BCDEFGHIK, and the semi-divine Elements proceeding from them to ABCD.

There has been much speculation among Lull scholars concerning the variation in the number of Dignities on which Lull bases his Arts. Sometimes he uses a sixteen form, in which seven more letters are added to the nine of B to K. I think that the reason for such variations should be sought, not in a supposed historical development in Lull's mind, but in the Scotist mysticism in which it is possible to build different 'theories', or mystical meditations, on

## ESSAYS ON THE ART OF RAMON LULL

varying numbers of Causes. Lull is not a philosophical thinker. He does not develop. The patterns of his mind and art were given to him once and for all in his vision.

These patterns can be expressed in geometrical terms. The Arts were based on three geometrical figures, the Triangle, the Circle, and the Square, and these figures are implicit in the arrangement of the Elements in the Elemental Figures (Figure 1).

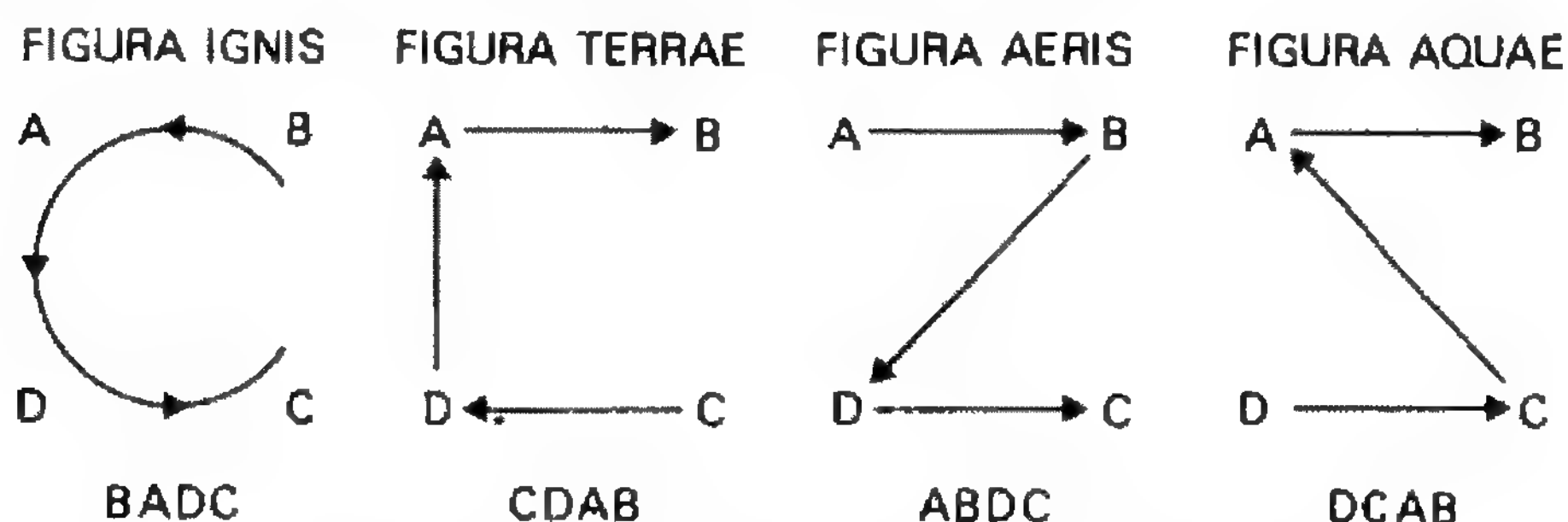


FIGURE 1 (after a drawing by R. W. Yates)

In the thirteenth century, the age of the rise of scholasticism, Lull and his Art provide a channel through which another tradition runs through the scholastic age, medieval Platonism, particularly in forms descending from Scotus Erigena, in which there is some similarity to Cabalist ways of thinking. Erigena's philosophy of expansion and retraction has more in common with dynamic Cabalism than with purely static Platonism. Lull himself was almost certainly influenced by Cabala which developed in Spain at about the same time as his Art. In fact, the Art is perhaps best understood as a medieval form of Christian Cabala.

When first published the two articles here reprinted were pioneer studies. The cosmological basis of the Lullian Art had been forgotten for centuries; its resemblances to the Scotist system had not been recognized. These new approaches indicated the Art as a method both scientific and mystical, and one with many affinities with Cabala. The influences of Arabic thought on Lull's outlook had of course long been known and studied by scholars, particularly the influence of the logic of Al-Ghazālī.

Lull chiefly valued his Art for its missionary possibilities. He believed that an Art based on principles which the three great religions – Christianity, Judaism, Islam – recognized, provided infallible arguments for the conversion of all to Christianity. This passionate missionary aim was paramount in Lull's life and work, the motive force behind his incessant promotion of his Art. This aim was afterwards partially forgotten but the Art continued to



## INTRODUCTION

spread and proliferate as a method, an attempt at methodical thought using diagrams and letter notations.

The Lullian artist is not a magus: the genuine Arts are not magical. Lull carefully avoided the use of the images of the stars in his 'elemental astrology' and he constantly affirmed that his Art was based on 'natural reasons'. But Lull, with his claims to the possession of a 'universal art', or key, may be said to prefigure the magus, and Lullism was to become inextricably bound up with the Hermetic-Cabalist philosophies of the Renaissance. Accepted by Pico della Mirandola, Lullism was the natural accompaniment of the Hermetic-Cabalist philosophy which underlies Renaissance Neoplatonism. In this atmosphere, Lullism took on the magical and occult flavour of that philosophy. The implicit connection of the Lullian emphasis on the elements with alchemy became explicit, and the pseudo-Lullian alchemy flourished. Many Renaissance magi, notably Cornelius Agrippa and Giordano Bruno, were Lullists, and by a development which has not yet been sufficiently analysed, the Art which its founder had tried to keep clear of magic became a vehicle for the Renaissance revival of magic and magic images.

Lullism does not lose its importance in the early post-Renaissance period. The immense significance of Lull's Art for the formation of method is now realized. The seventeenth century in its constant search for method was always aware of the Art of Ramon Lull, even when it discarded it. Bacon and Descartes both knew it. The attentive reader of the *Discours de la méthode* can hear therein distant echoes of Lull. In fact it is not an exaggeration to say that the European search for method, the root of European achievement, began with Ramon Lull.

## BIBLIOGRAPHICAL NOTES

When preparing the essay on 'The Art of Ramon Lull' I journeyed to Rome, Milan and Paris and examined about eighty manuscripts of works by Lull in the libraries of those cities. These labours on the manuscripts are reflected in the appendices to the article which also reflect the inadequacy of the bibliographical tools then available for such studies. Since then there have been great advances, above all in the foundation of the Lullus-Institut of the University of Freiburg im Breisgau, initiated by F. Stegmüller. This Institute has collected copies on microfilm of manuscripts of Lull's Latin works. Copies of

these can be obtained on application to the Institute, which is also publishing an edition of the Latin works. My odyssey would thus now be unnecessary but I do not regret the adventure of tracing in the manuscripts themselves the cosmological basis of the Lullian Art and the fundamental importance for its understanding of the elemental theory.

The study of the Lull encyclopedias of Le Myésier and Salzinger for which I call in Appendix III has been carried out by J. N. Hillgarth in his book *Ramon Lull and Lullism in Fourteenth-Century France*, Oxford, 1971. This admirable survey of Lull scholarship is essential reading for all those interested in this complex subject.

An edition of the Latin text of the *Tractatus novus de astronomia*, and a study of it in relation to Lull's medical works, have been provided by Michela Pereira, 'La filosofia naturale di Raimundo Lullo nel inedito "Tractatus Novus de Astronomia" nelle opere mediche e nella critica' (the Latin text of the *Tractatus* is given in an appendix), doctoral thesis, Università degli Studi di Firenze, 1970-1. This thesis is available in the Warburg Institute Library, pressmark ABB 480. Part of it is published in Pereira's article 'Richerche intorno al *Tractatus novus de astronomia* di Raimundo Lullo', *Medioevo*, II (1976).

A new edition, with English translation, of John Scotus Erigena's great work is in progress: *Periphyzion (De divisione naturae)*, edition and translation by I. P. Sheldon Williams, Dublin, Institute for Advanced Studies, 1968, 1972, etc.; the *Clavis physicae* of Honorius Augustodunensis has recently been edited by Paolo Lucentini (Rome, 1974).

The following are relevant: Frances Yates, *The Art of Memory*, London, Routledge & Kegan Paul, 1966 (Lullism as an Art of Memory); Frances Yates, *Astraea, the Imperial Theme in the Sixteenth Century*, London, Routledge & Kegan Paul, 1975 (Lullism and Chivalry); Frances Yates, *The Occult Philosophy in the Elizabethan Age*, London, Routledge & Kegan Paul, 1979 (Lullism and Christian Cabala).

THE ART OF RAMON  
LULL: AN APPROACH TO IT  
THROUGH LULL'S THEORY  
OF THE ELEMENTS

THE LONG LIFE of Ramon Lull (1232 to *circa* 1316) spans one of the most highly systematized periods of Western thought, the great thirteenth century which saw the development of scholasticism out of the re-discovered Aristotle. Though he stands apart from the main currents of scholasticism, Lull shared to the full the major drives of his age, its intense piety combined with rigorous method. Believing that he had had revealed to him an essential truth – or rather a method of demonstrating essential truth – he poured forth throughout his life, with incredible energy, a vast number of works many of which are expositions of, or related in some way to, his central systems.

The modern student of the Art of Lull is daunted by the difficulty of the subject, the vastness of the material, and – what is worst of all – by the inaccessibility of the material. Most libraries of any size contain one of the sixteenth- or early seventeenth-century editions of the *Ars brevis*, with which are often bound a version of the *Ars magna* and commentaries by Renaissance Lullists.<sup>1</sup> These abbreviated versions of the Art represent only a tiny fraction of Lull's output on the system which he believed had been divinely revealed to him and to the elaboration and propagation of which he devoted his whole life. Lullists who used the printed editions probably supplemented them from manuscript material. There indeed exists in the Biblioteca Ambrosiana a copy of an early printed edition of the *Ars brevis* bound with manuscripts.<sup>2</sup>

The eighteenth-century edition of the works of Lull, published at



Mainz and edited by Ivo Salzinger, still remains the only one in which all the various versions of the Art are printed, with their complicated diagrams reproduced in the plates.<sup>3</sup> This rare edition can only be consulted in the great libraries. And moreover it was never completed as Salzinger planned it. In the first volume he published a 'Revelatio Secretorum Artis' in which he quoted from certain of Lull's works which he regarded as essential for the understanding of the Art. These works were not published in the Mainz edition (two volumes of which never appeared) and some of them have not been published yet. Thus even the Mainz edition is frustrating for the student of the Art.

A splendid edition of the works of Lull, begun in 1901 and restarted in 1905, is still in process of publication at Palma.<sup>4</sup> This edition aims, very understandably, at presenting Lull as a great Catalan writer and thinker. It prints the Catalan version, where this exists, rather than the Latin version of his works, and it has so far concentrated – though with some exceptions – on his more purely literary works rather than on those directly concerned with the Art.<sup>5</sup> Unfortunately the Palma edition is not easy to come by in this country; even the British Museum does not possess the complete set.

A surprisingly large number of Lull's works, amongst them not a few of vital importance for the Art, are still unpublished. The richest collections of manuscripts are in Rome, Milan, Paris, Munich, Innichen and Venice.

The peculiarity of the Lullian Art is the use of letters of the alphabet, combined on geometrical figures, for the working out of problems. The 'Alphabet' (Pl. 1a) and the four basic figures (Pl. 1b, c, d, e) of the Art are given in the *Ars brevis*. These four figures can be taken as basic, though some of the unabbreviated Arts use more letters and expand the figures. As can be seen (Pl. 1a) the 'Alphabet' of the Art consists of nine letters which are given six sets of meanings. The first set are 'absoluta', namely B = Bonitas; C = Magnitudo; D = Duratio; E = Potestas; F = Sapientia; G = Voluntas; H = Virtus; I = Veritas; K = Gloria. The letter A represents a trinity, namely Essentia, Unitas, Perfectio.

The second set of meanings for B to K consists of nine 'relata' which group naturally into sets of three, as follows: B = Differentia, C = Concordantia, D = Contrarietas; E = Principium, F = Medium, G = Finis; H = Majoritas, I = Aequalitas, K = Minoritas. This set of meanings is followed by nine (or rather, ten) questions, and by nine subjects about which the Art is to be used,

namely B = Deus, C = Angelus, D = Coelum, E = Homo, F = Imaginativa, G = Sensitiva, H = Vegetativa, I = Elementativa, K = Instrumentativa.

As well as having these four sets of meanings – as ‘absoluta’, ‘relata’, questions, and subjects – the letters B to K can also mean nine virtues and nine vices.

After the ‘Alphabet’ come the ‘figures’ of the Art, and these are geometrical in character, or at any rate in appearance. The first (Pl. 1b) shows B to K on a circle, and all inter-connected with one another by lines within the circle. In the second (Pl. 1c) the letters on the circle are grouped in sets of three by three triangles within the circle which are labelled with the second set of meanings of B to K. The third (Pl. 1d) is part of a square divided into compartments containing combinations of B to K. The fourth (Pl. 1e) is three concentric circles, all labelled B to K; the outer one is fixed but the two inner ones revolve. Lastly, the *Ars brevis* gives, after the alphabet and the figures, a table, the ‘Tabula Generalis’, in which combinations of the letters B to K are set out in columns. (Very much more elaborate forms of this table of combinations are given in the unabridged Arts.)

Treated with the utmost contempt by nineteenth-century scholars like Prantl<sup>6</sup> and Littré,<sup>7</sup> the Lullian Art has been for long relegated to the dust heap of useless speculations. Even a fervent admirer of Lull as a writer, as a mystic, and as a missionary, such as the late Allison Peers, skirts round the Art in his biography of the Doctor Illuminatus as a rather unfortunate aberration of an otherwise great man.<sup>8</sup> There are, however, signs today that the Lullian Art is attracting some interest as a possible distant ancestor of modern symbolic logic.<sup>9</sup>

There is no doubt that the Art is, in one of its aspects, a kind of logic, that it promised to solve problems and give answers to questions (the ‘questions’ of the ‘alphabet’ – see Pl. 1a – seem roughly to correspond to the Aristotelian categories) through the manipulation of the letters on the figures. Littré described the *Ars magna* as, at bottom, nothing but ‘le syllogisme représenté par des diagrammes’.<sup>10</sup> Lull, however, claimed that his Art was more than a logic; it was a way of finding out and ‘demonstrating’ truth in all departments of knowledge.

Encore vous dis-je que je possède un Art général, nouvellement donné par un don de l'Esprit, grâce auquel on peut savoir toute chose naturelle, en tant que l'entendement atteint les

choses des sens; bon pour le droit, et pour la médecine, et pour toute science, et pour la théologie, laquelle m'est plus au cœur. A résoudre questions aucun art tant ne vaut, ni a détruire erreurs par raison naturelle.<sup>11</sup>

These are stupendous claims. They seem to imply that Lull believed that he had discovered, or had had revealed to him an Art of thinking which was infallible in all spheres because based on the actual structure of reality, a logic which followed the true patterns of the universe. He valued this infallible Art most for its virtue in the theological sphere, on which level he believed that it could 'demonstrate' the truth of the Incarnation and the Trinity to unbelievers. But it could also work with precision in other spheres, 'bon pour le droit, pour la médecine, et pour toute science'.

If we look once more at the 'Alphabet' (Pl. 1a) of the Art, we perceive that (as already pointed out) A is a trinity, and B to K as 'absoluta' are divine attributes, or, perhaps, emanations. Moreover, B to K as 'subjects' are a 'ladder' (to use one of Lull's own favourite mystical symbols) rising from the primitive elemental world (*elementativa*), through the vegetable world (*vegetativa*), the animal world (*sensitiva*), the human world (*homo*), to the celestial world (*coelum*), and thence to the angelic and divine worlds (*angelus*, *Deus*). On all these subjects the Art could be used. That is to say, the Art could range throughout the universe as conceived in the thirteenth century.

It is the purpose of the present article to tackle Lull and his Art on the 'subject' *coelum*. That is to say, on the subject of 'the heaven' which, for Lull, always means the twelve signs and the seven planets and a certain kind of astrology. In pursuing this limited aim we shall omit matters which the reader would expect to find treated.

This one-sidedness means that we shall not, at the end, be able to throw any clear light on the actual working of the 'combinations' in the Art. We shall hope to have proved that the new approach here indicated is vitally important for its understanding. But to comprehend it fully — as I believe may eventually be possible when this hitherto ignored strand in it is taken into consideration — will involve attacks on it from the logical, mathematical, metaphysical and theological sides as well, and, above all, the use of many more of Lull's unpublished manuscripts than the one which we here examine.



The only known treatise by Lull on astronomy is the *Tractatus novus de astronomia* written in 1297. This work has never been published though a good many manuscripts of it exist.<sup>12</sup> It has always been accepted as a genuine work of Lull's and indeed it satisfies all the requirements for Lullian authenticity. It is referred to by Lull in undoubtedly genuine works by him;<sup>13</sup> it is probably the *Ars astronomiae* mentioned in the early manuscript catalogue which is always used as a test of authenticity;<sup>14</sup> and there exist versions of it in Catalan.<sup>15</sup> Even Littré, always so ready with the damning indictment 'pseudo-Lullian', accepted the *Tractatus novus de astronomia* as undoubtedly genuine, though, having misinterpreted its preface, he believed it to have been written to warn princes and magistrates against astrology.<sup>16</sup>

In the preface, Lull says that he wishes 'to investigate and find out new ways through which men may have knowledge of many natural secrets through which greater knowledge may be had of astronomy and its judgments.' To this he adds that he has composed this treatise 'for princes and magistrates that they may know how to beware of many astronomers who deceive them with false judgments which they make from the celestial bodies.'<sup>17</sup> And he further warns against divinations from the art of geomancy.

Lynn Thorndike has pointed out that the examination of the treatise shows that

it is only of certain astrologers and diviners who deceive princes by false judgments that Raymond would have royalty beware. He writes his book not because 'astronomy' (i.e. astrology) is false but because it is so difficult that often judgments made by the art turn out to be false, and because he wishes to investigate and discover new methods by which men can have greater knowledge of 'astronomy' and its judgments.<sup>18</sup>

As in his famous 'Arts', Lull uses in this work an 'alphabet' — a series of letters to which he assigns certain meanings — and a 'figure'. But here the alphabet and the figure are explicitly used to work out problems in astrology.

Figure 1.1 shows eight concentric circles.<sup>19</sup> On the outermost one are written the names of the twelve signs of the zodiac. The seven inner ones follow the order of the planetary spheres and on each is written the name of the planet which it represents. The outer

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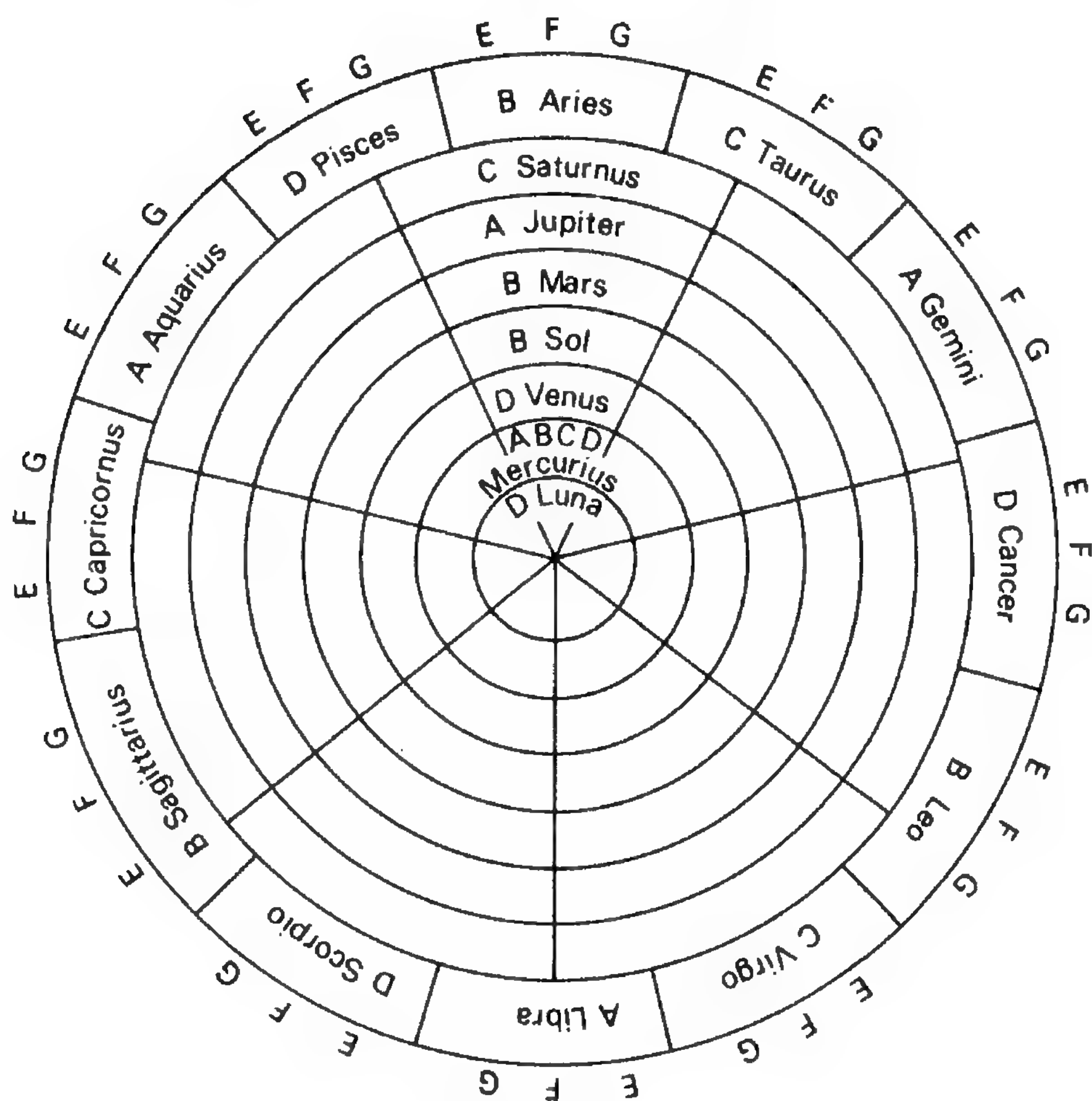


FIGURE 1.1

circle, with the zodiac, is fixed and stationary, but the seven inner ones revolve. It is obvious that this simple device enables conjunctions of planets in signs to be easily read off. (Aries with Saturn; move the outermost planet circle so that Saturn is under Aries. Aries with Saturn and Jupiter; move the next planet circle so that Jupiter come under Saturn in Aries; and so on.)

Each of the signs and each of the planets is labelled with a letter, either A, B, C, or D; with the exception of Mercury who is labelled with all four, ABCD.<sup>20</sup>

The assigning of these letters is based on a beautifully simple principle. ABCD represent the four elements; A = Air; B = Fire; C = Earth; D = Water. In the physical theory of the Middle Ages, which was, of course, descended from classical antiquity, each of the terrestrial elements was supposed to have two qualities; air, warm and moist; fire, hot and dry; earth, dry and cold; water, cold and moist. ABCD have these meanings. But these letters also represent the signs and planets in accordance with their affinities with the

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terrestrial elements. Astrology teaches that the twelve signs are grouped in four elemental triplicities, or groups of three. In the figure, the signs of the air triplicity are labelled A; those of fire, B; those of earth, C; those of water, D. (If all the A's, B's, C's, and D's of the outer zodiacal circle are joined by triangles, one has the four triplicities of the signs.) Astrology teaches that the planets are also apportioned among the elements: Saturn is earthy, therefore in Lull's notation he is C: Jupiter, airy, an A: Mars and Sol, fiery, therefore both B's: Venus and Luna, watery, both D's. Mercury has no predominant elemental affinity of his own, but is 'convertible' to those of other celestial bodies through their influence. Hence, Mercury is labelled ABCD.

The following are, therefore, the meanings of A, B, C, and D:

A	Aer	Gemini, Libra, Aquarius	Jupiter	Humidus et calidus
B	Ignis	Aries, Leo, Sagittarius	Mars, Sol	Calidus et siccus
C	Terra	Taurus, Virgo, Capricornus	Saturnus	Siccus et frigidus
D	Aqua	Cancer, Scorpio, Pisces	Venus, Luna	Frigidus et humidus
ABCD			Mercurius	

This notation is assigned to the signs and planets in the first section of the first part of the *Tractatus* which is on what Lull calls 'the old principles of astronomy' (*de antiquis principiis Astronomiae*).<sup>21</sup> These principles are the twelve signs and the seven planets which he lists in order, giving for each one the usual astrological information about it (though he says that he has selected from that information only what seems to him true). Under 'Aries', for example, we are told that this sign is diurnal, mobile, masculine, has Mars for its planet, is of the complexion of fire and therefore relates to the choleric temperament in man, that it rules man's head, and the regions of Persia and Babylonia. It transmits its characteristics to those born under it who are likely to be choleric, masculine, mobile, unless such characteristics are modified by planetary influences. Under 'Saturn', to take an example from the planet list, we learn that this planet is diurnal, masculine, bad, has lead for its metal, the Sabbath for its day, is of the earthy complexion, and those born under it are melancholics. To repeat any more of such characteristics of the signs and planets from this lengthy first part on the 'old principles of astronomy' would be to repeat matter which can be learned from astrological text-books.

To the 'old principles' he is applying a new method, or a new notation. In the case of each sign and planet he begins by specifying



its elemental 'complexio' and by assigning to it the appropriate letter by which it will be designated in his method. I take again 'Aries' and 'Saturn' as examples and quote the opening words of Lull's treatment of them:

*Aries* est signum cui complexio ignis attribuitur qui calidus est et siccus cuius scilicet ignis complexio significatur per B in hoc Tractatu. . . .<sup>22</sup>

*Saturnus* est de complexione terrae quae significatur per C et est masculinus, diurnus et malus. . . .<sup>23</sup>

In his opening treatment of the 'principles', Lull lays down the 'alphabet' of his art by assigning A, B, C, or D to each sign and planet according to its elemental 'complexio' (as outlined above), except in the case of Mercury which 'per se complexionem non habet.'

Astrological theory involves, of course, that not only the complexion of man (choleric, sanguine, melancholic, or phlegmatic) depends on stellar influences, but that all things in nature — stones, metals, plants, animals — must be grouped in accordance with these influences. Lull notices these groupings in his list of the 'principles', dwelling on which metals, plants, or animals belong to which star. It follows from this — though a point not actually mentioned in the list — that it would be possible to speak of a 'B complexion' man, metal, plant, animal, and so on — that is of a man, metal, plant, or animal in which the B, or fiery, element, predominated because under the influence of a B star.

Since all things in the sublunar world are composed of the four elements and since these elements depend on the stars, one can work out 'fortunes', or *judicia*, that is one can do astrology, by studying the elemental combinations in any given conjunction of planets in a sign. The Figure (Fig. 1.1) enables one to read these off immediately in terms of A, B, C, and D. For example, Saturn in Aries = BC; Saturn and Jupiter in Aries = BCA. And so on.

In order to do astrology by this method, one must understand the principles of what Lull calls 'devictio', or the principles governing the fortunes of A, B, C, and D in their various combinations. This depends roughly on majority. If, for example, Sol and Venus are in Cancer you have DBD, a combination in which D wins over B. Or, as Lull puts it, 'Cum Cancer Sol et Venus sunt insimul tunc faciunt

istum figurum scilicet b.d.d. et b est devictus et d regnat.'<sup>24</sup> But what happens in a combination like BCA = Saturn and Jupiter in Aries?

To work the niceties of 'devictio' one must grasp the distinction between what Lull calls the 'proper' and the 'appropriated' qualities of the elements.<sup>25</sup> In B, which is *calidus et siccus*, heat is the 'proper' quality and dryness the 'appropriated' quality. Similarly in A (*humidus et calidus*), in C (*siccus et frigidus*), in D (*frigidus et humidus*) the first-mentioned quality is the 'proper' one, the second the 'appropriated' one. The proper quality is stronger than the appropriated one, and has the power of drawing over to its side (so to speak) an appropriated quality of the same nature as itself in another element and so conquering or 'devicting' that element.

For example, in the combination AB, you have a *humidus et calidus* with a *calidus et siccus*. In this case B *vincit* A, because B's proper *calor* draws in A's appropriated *calor* and this makes B's proper *calor* stronger than A's proper *humiditas*. In AD, A wins, and devicts D. In BC, it is C who is the conqueror. In CD, it is D who wins. In the combinations AC and BD both proper and appropriated qualities are contraries, so neither side can win.

A considerable part of the *Tractatus* consists in working out combinations of planets in Aries, Taurus, Gemini, and Cancer in terms of A, B, C, and D.<sup>26</sup> (Lull says that the student can then go on by himself working out combinations in all the other signs.) By going into the niceties of 'devictio' he establishes what will be in each disposition of the planets in those four signs the relative power of A, B, C, or D, and this tells one which stars will be most influential in that disposition. For example, the answer to the problem of what happens in the case of Saturn and Jupiter in Aries, or BCA, is that the *calor* and *siccitas* of B are the victors, and that therefore Aries and his conditions or characteristics are more influential in that conjunction than those of Saturn or of Jupiter.<sup>27</sup>

By a brilliant process of abstraction and simplification, Lull has swept away the complicated apparatus of the horoscope-makers and puts forward a new method for doing an impersonal and highly scientific kind of astrology. One may well believe that this method may have seemed, both to himself and others, a wonderful discovery. Concentrating on the stellar influence on the elements as the bed-rock of astrological theory, he provides an alphabetical notation for working out astrological problems in 'elemental' terms.<sup>28</sup>

In the *Tractatus* we have found Lull doing a kind of astrology by

means of letters of the alphabet on a rotating figure representing the zodiac and the planets. This in itself is enough to raise speculations in our minds when we look back again at the figures of the Lullian Art, particularly the fourth figure (Pl. 1e), which has, indeed, actually been described by Thorndike as consisting of 'concentric circles divided into compartments, of which one rotated something like the planets in the signs while the other remained stationary like the sphere of fixed stars'.<sup>29</sup> And that there is some kind of connexion between the methods of the *Tractatus* and those of the great Art is evident in the *Tractatus* itself.

It will be remembered that the *Tractatus* begins with the catalogue of the signs and the planets, and the assignation to them of A, B, C, or D, and that this first section of the first part was described as being concerned with the 'old principles of astronomy'. Now the second section of this first part is

on the principles of the *Ars Generalis* which are applied to the old principles of astronomy, and with the principles of the said Art may be understood and found out the truth concerning the old principles of astronomy, so that their nature and secrets may be discovered and shown forth.<sup>30</sup>

And when this second section begins we are told that it will investigate what has been said in the first section (on the 'old principles' or the signs and the planets) with the principles and questions of the *Tabula generalis*.

Principia Tabulae sunt haec, bonitas, magnitudo, duratio, potestas, sapientia, voluntas, virtus, veritas, gloria, differentia, concordantia, contrarietas, principium, medium, finis, majoritas, aequalitas, et minoritas. Cum istis 18 principiis generalibus investigari possunt omnes res, quae sunt intelligibiles, et possibiles ad intelligendum.

Decem sunt genera quaestionum, videlicet, utrum, quid, de quo, quare, quantum, quale, quando, ubi, quomodo, et cum quo. Per haec decem genera quaestionum, fieri possunt omnes quaestiones, quae quaeruntur.<sup>31</sup>

These 'principles of the Table' with which the 'old principles' or the signs and planets are to be investigated are, therefore, the 'absoluta',



the 'relata' and the 'quaestiones' which in the Lullian Art are designated by BCDEFGHIK (see Pl. 1a).

In fact, it may be said that in the *Tractatus* Lull is applying the principles of his Art to the 'subject' *coelum* (designated as D in the 'Alphabet' of the Art, see Pl. 1a). And that he understands this 'subject' in an astrological sense, meaning by it the twelve signs and the seven planets.

We have now to apply ourselves to try to understand the extraordinary second section of the first part of the *Tractatus* in which Lull goes through the eighteen principles and most of the questions of his Art in relation to the heavens. It will be impossible to do this in any detail. All that we can attempt is the examination of a few of what seem to be the most significant and illuminating passages.

In answer to the question 'of what' (*de quo*) is the heaven, it is replied that the heaven is of celestial form and nature. And further it is stated that this form and nature is of 'substantial' *bonitas*, *magnitudo*, *duratio*, *potestas*, and the rest of the eighteen principles, with the exception of *contrarietas* which is not 'substantially' in the heaven. The substantial *bonitas*, *magnitudo*, etc. of the heaven is derived directly from God who created the heaven thus so that it might cause all the inferior *bonitates*, *magnitudines*, etc. in the lower world. This it does in the following manner:

The seal which imprints the similitudes of its letters on the wax pours its influence into the similitudes (*similitudines influit*) which are not of the essence of the seal. For the seal does not put anything of its essence into the wax; for the letters which are on the seal are of its essence and do not leave it. Similarly signs and planets do not transmit to inferior bodies anything, either substantially or accidentally, of their essential properties and natures; but they imprint on them (i.e. on the inferior bodies) their similitudes which are the influences which they transmit to the inferiors. And those influences are drawn from potentiality into action from the qualities in the inferior substances, through the superior substances. As the seal draws from potentiality into action in the wax the similitudes of its letters. And the similitudes or influences which are transmitted from the superiors are the similitudes of *bonitas*, *magnitudo*, and of the other principles of the heaven, which move the inferior substances so that they become in act those letters which they have in them in potentiality. As Sol, who by his greater splendour, in summer multiplies greater heat in



fire; and as Luna, who by her waxing and waning makes fountains, rivers, and the menstrie in women to increase and decrease.<sup>32</sup>

Lull is here repeating a commonplace of astrological theory when he says that the influences of the signs and planets on inferior things are in the nature of seal-imprints. But what makes this passage of the keenest interest and importance to the student of the Lullian Art is that he here seems to identify the influences of the signs and planets with those of *bonitas*, *magnitudo*, and the other 'principles' of the Art. And the influences which they transmit to inferiors, like the similitudes of letters on wax, become the influences, or similitudes, of *bonitas*, *magnitudo* and the other principles designated by the letters BCDEFGHIK in the Lullian Art.

The above statement is not an isolated instance of this curious role of *bonitas*, *magnitudo* and the rest as 'principles' of heaven transmitting influences in a manner which seems to be identified, in some way, with that of the 'old principles' of the heaven, that is of the signs and planets. The whole of the *Tractatus* may be said to be concerned with stating this in various ways, and its double theme is laid down, as it were, in the first part, with its first section devoted to the 'old principles' or the signs and planets; and its second section in which the 'principles' of the Art are examined one by one and associated with the signs and planets. For example, the paragraph in the second section on the *potestas* of heaven begins:

In coelo et stellis est potestas naturalis et essentialis cum qua signa et planetas habunt actionem in corporibus inferioribus. . . .<sup>33</sup>

That on the *virtus* of the heaven begins:

In coelo et planetis est virtus quae informat movet et disponit virtutem in inferioribus secundum quod in signis est diffusa et in planetis sicut virtus Solis quae appetit flores et ipsos vertit ad suum respectum et ut ab ipso virtutem recipiant in quantum disponit quod virtus quam habet in potentia in actu educatur.<sup>34</sup>

In fact the 'principles' of *bonitas*, or *potestas* or *virtus* and the rest, are the powers in the heaven informing the signs and the planets, or, in some sort, identical with them. From this it follows that the

influence of the signs and the planets on the elements is really the influence of *bonitas*, *magnitudo*, etc. on the elements, so that one can say, for example, that the reason why B *vincit* D is because the 'virtus coeli iuvat B contra D', or that it is the *duratio* of heaven which with Saturn makes dry and cold lasting, or with Sol the hot and the dry, or with Jupiter, the moist and the hot.<sup>35</sup>

The identification of the signs and the planets and their influences with *bonitas* and the rest, and their influences, is, however, refined upon and qualified in various ways. One of the most important of these refinements is that by which the distinction between 'proper' and 'appropriated' qualities – which, as we saw, was the principle behind 'devictio' in telling fortunes through the elements – takes on another meaning in this context.

The signs and planets have, we are told, both 'proper' and 'appropriated' qualities.<sup>36</sup> The 'proper' qualities of the signs and planets are, so Lull states, *bonitas*, *magnitudo* 'and the other principles of the *Tabula generalis*', that is, of course, *duratio*, *potestas*, and the rest of the 'Alphabet' of the Art. Their 'appropriated' qualities are their individual characteristics, such as for example, the badness of Saturn or the goodness of Jupiter. These appropriated qualities are in turn divided into two classes, 'common' and 'specific'. Common are those which several stars may have in common, such as the badness of both Saturn and Mars or the goodness of both Jupiter and Venus. Specific qualities are those peculiar to one planet or sign, such, as for example, lead and the Sabbath day which are peculiar to Saturn.

From this it follows that in its 'proper' quality no sign or planet has a bad influence, for the proper qualities of all of them are the principles *bonitas*, *magnitudo* and the rest. It is also possible to say that through their proper qualities all the signs and planets are in concordance with one another.<sup>37</sup>

And finally, it is possible to say that the terrestrial elements have greater concordance with the heaven through their mutual *bonitas*, *magnitudo*, etc., than through their elemental affinities. For example, Sol and Fire concord more through mutual *bonitas*, *magnitudo*, and so on, than through *calor* and *siccitas*; for Sol is not formally *calidus* and *siccus*, but he is formally *bonus*, *magnus*, *durans*, *potens*, etc.<sup>38</sup>

*Contrarietas*, alone of the 'principles of the Table' is not in the heaven substantially, but it is there *per accidens*, and it is this which causes generation and corruption in inferior things which arise from the concords and contrasts between the terrestrial elements in their dependence on the stars.

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The heaven, says Lull, has a soul, though not a vegetative, sensitive, or rational soul, and it moves in a circle. And in the circular movement of the heaven there is concord between the signs and the planets through their proper qualities – their mutual *bonitas*, *magnitudo*, *duratio*, and the rest. And the heavenly bodies do not cause (what happens here below) principally through ABCD (that is through the elements) but they cause principally through *bonitas*, *magnitudo*, *duratio*, etc. (The principles *sapientia*, *voluntas*, *gloria* when in the heaven are given the names *instinctus*, *appetitus*, and *delectatio*.)

In examining these principles in turn in the *Tractatus*, Lull discusses them in the signs and planets and he states of each one that it is the cause of such principles in inferior things. For example, *magnitudo* in the heaven is the cause of all inferior *magnitudines*;<sup>39</sup> the *instinctus* in the heaven is the cause of all instincts in inferior things;<sup>40</sup> the *aequalitas* in the heaven is the cause of all inferior *aequalitates*.<sup>41</sup>

Let us take one example, and attempt to give the gist of the paragraph on *aequalitas* as a principle of heaven.

The equality in the heaven is the cause of all inferior equalities, and this in two ways, by equality of measure and equality of proportion. Aries and Mars are equal in B as a measure, but according to proportional equality Mars has more B than Aries, for Mars has B throughout its sphere, but Aries does not have B throughout the circle of heaven. Sol is greater than Venus and therefore the 'aequalitas superior' cannot make equal measures of B and D but it makes them 'proportionally' so that in inferior things the contrarieties may be tempered by Sol and Venus. After giving other instances of 'equality' in the signs and planets, the statement is made that the 'aequalitas coeli' causes the instinct and natural appetite in inferior things for justice and that this is the cause of the composition of geometry, arithmetic, and music

et propter hoc astronomi possunt per astronomiam artem scire alias scientias quadrivalis et etiam Jus et Medicinam.<sup>42</sup>

So far as I am able to understand it, what goes on in Lull's mind is something as follows.

By simplifying astrology to its elements by the ABCD method, with its distinction between 'proper' and 'appropriated' qualities in the elements, he had got nearer to the truth of astrological influences and the way to calculate them.



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By distinguishing again between ABCD in the heaven and the 'proper qualities' of the heaven – in this case *aequalitas* – he gets still nearer to the truth. It is the *aequalitas* in the heaven between A, B, C, D as the signs and planets which is the true influencing cause, for this alone is substantially in the heaven, and not A, B, C, D themselves, as the elements.

Thus 'aequalitas' becomes the influencing principle which imprints its 'similitude' on the equalities in inferior things, on equality between men of the same size, or belonging to the same class of society, on equality in justice, geometry, arithmetic, music, and in the sciences of law and medicine.

We may note that there is a kind of parallelism between 'proper qualities' in the elements and in the heaven. In the lower terrestrial sphere it is the 'proper quality' of the element which is its powerful or operative quality. On the higher grade or level of the heaven the superiority of the 'proper quality' reaches a much higher degree of superiority and becomes an abstract principle.

An Art which could calculate through the 'proper qualities' of the heaven, making allowance for what happens in the lower world when *contrarietas* comes in (which alone of the 'principles' is not substantially in the heaven) would be an all-embracing Art. The clue to its working would be the connexion between BCDEFGHIK and ABCD.

Lull claims that he is making original departures in the science of astrology in this very curious work. He says that it corrects the errors of 'old astronomers'. These 'old astronomers' erred in not giving reasons for what they knew by experience and in not giving general principles for the guidance of students and practitioners. For example, they did not explain the distinction between the 'proper' and 'appropriated' qualities in the elements – that is in ABCD – nor investigate the rules of 'devictio' which decide the victory of one element over another. Yet this method, when properly employed, will indicate what complexion reigns in a conjunction.<sup>43</sup>

Another deficiency of the 'old astronomers' was that they did not state that the signs and planets have 'proper' parts or qualities, and that these are 'naturalis et substantialis bonitas, magnitudo et alia'. They therefore did not understand that – for example – although Taurus and Gemini or Saturn and Jupiter are contrary to one another 'per A C per accidens', yet in their essence and nature they

concord with one another because they are 'de una et eadem bonitate, magnitudine et aliis'.<sup>44</sup>

This does not exhaust all the errors of the old astronomers but I quote these two points to show that Lull believed that he was original — or at any rate introducing something not generally known — both in his way of doing astrology by the ABCD method based on the rules of 'devictio', and in insisting on *bonitas*, *magnitudo*, and so on, as the proper qualities of the signs and planets.

But the most serious defect of the 'old astronomers' was that they erred against God and against the soul of man by insisting that the heaven rules of necessity over all things here below.<sup>45</sup> God, says Lull, is the first cause of the signs and planets; he created the heaven and the firmament and he moves the constellations to the end for which they were made, namely man. He can if he will alter their influences. When through Aries, Jupiter, or Mars, there should be famine and sickness in some region, God in answer to prayer may give health and abundance. Therefore 'astronomy' is not a 'necessary' science. As a smith can make the hammer fall obliquely instead of directly, which is its nature, so God may move the influences of the constellations.

The superior bodies in the heaven do not participate in the soul of man, and the soul has power to move the body as it will. Through the soul joined to the body of man, God can therefore cause him to act against the constellation in which he was born. If born under Saturn and Aries, he can turn to do the operations of Cancer and Jupiter.

Therefore the 'old astronomers' have erred in making astronomy a 'necessary' science.

The passage concludes with warnings against geomancers and their mistakes.

Much which may be of great importance has been omitted in the above brief survey of the contents and design of Lull's *Tractatus de astronomia*. But enough has been said to show that this work reveals Lull in an entirely new and hitherto unsuspected light. He is not only doing astrology in this treatise; he is doing a new kind of astrology, or rather doing the 'old astrology' by a new method. The preface which has thrown so many modern students of Lull off the scent through appearing to be a warning against astrology can now be better understood. It is a warning against the errors of the old astrologers and an introduction to a new and improved method.



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This new method uses the 'old principles' of astrology, namely the signs and planets and their influences, which it expresses through an alphabetical notation. And it combines or interprets the 'old principles' with other 'principles' and these latter are none other than the 'principles' of the main Lullian Art. There can be little doubt that what we have in the *Tractatus* is the application of the general Lullian Art to the particular science of 'astronomy'.

But this treatise tells us more than that, for it reveals how important for Lull's conception of the manner in which the divine principles work in the universe was his integration of these with astrological influences on the elements. We need to gather more information about this from his other works before we can envisage its importance for the general Art, based on the divine principles.

There is a long course to take through the vast ocean of the works of Ramon Lull in search of more material on his theory of the elements, or 'elemental astrology'<sup>46</sup> as one might perhaps call it. Important from this point of view is the working of the Art on the science of medicine.

### THE *TRACTATUS* AND ASTROLOGICAL MEDICINE

It will be remembered that in the poem quoted above<sup>47</sup> Lull claims to possess an *Ars generalis* which will work for law, for medicine, and for all sciences. This may be interestingly compared with the statement in the *Tractatus* that 'astronomi possunt per astronomiam artem scire . . . scientias quadrivalis et etiam Jus et Medicinam'.<sup>48</sup>

Lull's medicine is an important line through which to follow up the clues given in the *Tractatus*; there are allusions to medicine in the *Tractatus*, and there are several treatises by Lull on astrological medicine which connect very closely with the *Tractatus*.

That the method of the *Tractatus* could be used in astrological medicine is indicated at several points in that work. I can only suggest this very briefly from one quotation.

In discussing the elemental combination AC in which neither A nor C can conquer, or 'devict' one another because both their proper and appropriated qualities are contraries, Lull makes the following statement:

#### De A C

Significat C complexionem siccam et frigidam, et terra formaliter sicca est per se et frigida per aquam, et ideo si de

duabus herbis aequalibus in bonitate, potestate, et virtute, quarum una est de complexione de A, et alia de complexione de C, facta est una medicina, A non vincit C in illa medicina, necque C vincit A, quoniam aequaliter in illa medicina sibi invicem contrariantur per qualitates proprias, et appropriatas; verumtamen si patiens qui medicinam sumit sit de complexione de A, devincitur C per A, sed sit de complexione de C, devincitur A per C. Simili modo est de constellationibus, veluti si Saturnus et Jupiter sibi invicem obviant in domo Tauri, devincitur Jupiter, et iudicium fieri debet secundum illum planetam qui alium devincit.<sup>49</sup>

From this simple example one may grasp the idea of how the ABCD method might be of value in astrological medicine. The complexion of the patient would be denoted by A, B, C, or D (A, sanguine, B, choleric, C, melancholic, D, phlegmatic). So would the complexions of the herbs from which the medicines were made. Then by the 'devictio' method one would know what happens when, as in this case, an A or a C patient takes an AC medicine. In the first case C, in the second case A, will be 'devicted' inside the patient. Just as when Saturn (C) and Jupiter (A) are in Taurus (C), A will be devicted by C, and the C complexion will reign in that house.

Note that the contrary A and C herbs are not contrary, but equal, in *bonitas*, *potestas*, and *virtus*.

The hints on astrological medicine in the *Tractatus* can be found in fully developed form in Lull's treatises on medicine. One of these, the *Liber de regionibus sanitatis et infirmitatis*,<sup>50</sup> is very closely related to the work on astrology, of which its first part is practically a repetition or an abbreviation. Its second part applies the method to astrological medicine, particularly to the 'grading' of the elements in medicinal samples.

The same method is used in the medical work which Salzinger published in the first volume of the Mainz edition, namely the *Liber principiorum medicinae*. The astrological basis of the medicine is, however, not made clear in this work, save by the introduction of a figure at the end, the use of which is not explained and which cannot be understood without reference to Lull's other medical works and to his work on astrology. Salzinger, who had very carefully studied the *Tractatus de astronomia* from which he quotes extensively in his 'Revelatio', warns the reader of this in a note.<sup>51</sup>

The *Liber principiorum medicinae* is illustrated by a diagrammatic

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'Tree of the Principles and Grades of Medicine' (Pl. 2). As can be seen at a glance, in this diagram the ABCD notation for the elements is combined with the principles of the Lullian Art. ABCD appear on the circles at the foot of the Tree and on the trunk from which sprout the 'grades'. The 'triangles' are taken from the Art.

The Tree divides into two branches. In the description of the diagram in the text of the work, we are told that the branch on the left represents what has been taught about medicine by 'old doctors', that on the right what has been 'newly invented' about this science and that the 'new' branch in turn divides into two parts, one of which is divided into ABCD and the other into three triangles and a rectangle formed from the principles of the Lullian Art.<sup>52</sup>

Thus Lull in this work is setting out to do medicine in a 'new' way which will be an improvement on that of the 'old doctors' because it will use a new method based on ABCD and BCDEFGHIK. We are immediately struck by the close parallel with the work on astrology which claimed to have made a similar advance on the methods of 'old astronomers'.

We are told in the *Liber principiorum medicinae* that the method used in the work is applicable to other disciplines, including philosophy, law, and theology. 'Est in hac Arte Metaphora, ut per hoc, quod secundum Gradus et Triangulos et alias Distinctiones in hac Arte dictum est, possint etiam intelligi ea, quae de aliis scientiis existunt, sicut de Theologia, Jure et Philosophia naturali et aliis, per quas intellectus exaltatur in intelligendo.'<sup>53</sup>

Thus, if one could understand how Lull does medicine by the combination of ABCD and BCDEFGHIK one would be drawing close to the secret of how the Art works as a whole.

In the hope of inducing historians of medicine to help with this side of the problem I would remind them that Paracelsus mentions Lull.<sup>54</sup> Giordano Bruno, whose *De medicina Lulliana*<sup>55</sup> shows that he was fully aware of the astrological basis of the Lullian medicine, even goes so far as to accuse Paracelsus of having borrowed his ideas from Lull without acknowledgment.<sup>56</sup>

## THE *TRACTATUS* AND ALCHEMY

As is well known, many alchemical treatises of the fourteenth and fifteenth centuries purport to be written by 'Raymundus Lullus' and make use of the alphabetical and geometrical schemes of the Lullian



Art in abstruse efforts at combining the elements to obtain the Philosopher's Stone.<sup>57</sup> This posthumous reputation of Lull as an authority on the alchemical method has seemed unsupported by Lull's genuine works, none of which treat of alchemy. And further there are several passages in the authentic works in which Lull utters warnings against alchemy and alchemists, and this seems further good evidence that the 'pseudo-Lullian' alchemical tradition could not have stemmed from the genuine Lull but was unwarrantably fathered on him.

So long as the Lullian Art is regarded solely as a method of doing logic by some almost mechanical process, it is possible indignantly to deny that it could have anything in common with alchemy. But the discovery that there may be hitherto unsuspected 'elements' in the Art must, I think, of necessity re-open the whole question of Lull and the alchemical tradition.

As has been indicated above, there are passages in the *Tractatus* which show that the use of its method is envisaged in application to astrological medicine, as a scientific method of calculating elemental complexions in man, and in medicines made from plants, in relation to the stars. Is its use also envisaged in connexion with elemental complexions in metals and other substances? That is to say, could it be used not only in astrological medicine but also in alchemy?

The 'convertible' planet Mercury and the substance associated with it — namely *argentum vivum* or quicksilver — were, as is well known, fundamental to alchemical theory and practice. We have seen that the ABCD method acknowledges the peculiar position of Mercury among the planets by labelling him with all the letters. In the *Tractatus* Mercury might almost be said to sum up in himself the ABCD method for he, and he alone, is ABCD. This may in itself seem significant, and it becomes more so when we find that alchemy is mentioned in some of Lull's 'fortune-telling' by the ABCD method in conjunctions in which Mercury occurs. The following are some examples of this:

*Aries, Jupiter, Mars, Sol, Venus, Mercury* BABBD(ABCD)

It is noted that in this constellation 'Mercury is convertible, and therefore Alchemists say that Alchemy has fortune in this constellation through B and infortune through D.'<sup>58</sup>

*Aries, Sol, Venus, Mercury* BBD(ABCD)

'This constellation is good for Alchemists and Doctors . . .



because Mercury is convertible to good with the good *actio* of Sol and the good *passio* of Venus.'<sup>59</sup>

*Cancer, Venus, Mercury, Luna* DD(ABCD)D

The very strong fortune of D in this constellation is still more strengthened because Mercury converts to it and 'Alchemists like (or choose) this constellation because in it the *argentum vivum* has good fortune and the colour white.'<sup>60</sup>

So far as I am able to understand these results, they would seem to mean that when Mercury is in a constellation where one element has a majority, he 'converts' to this powerful element and so wins a fortune for alchemy and *argentum vivum* in that constellation. (The second example relates to the grouping of the elemental qualities as 'active' and 'passive'. Hot and cold are active; moist and dry are passive. This theory is given in the *Tractatus*.)<sup>61</sup>

There is no doubt that Lull did not believe in the possibility of the transmutation of metals. He states this repeatedly in his works, and notably in the long and important passage on generation and corruption of metals in the *Liber principiorum medicinae*<sup>62</sup> which shows that he had examined specimens of the alchemist's art. That he did not write works on alchemy as he did on astrological medicine may well have been because he thought it a vain science, and not ethically important like medicine. Nevertheless the 'pseudo-Lullian' alchemists — it may now be suggested — were not wrong in supposing that the Lullian notations and figures could be used for calculating elemental combinations. Nor probably would they have been wrong in assuming that Lull's scientific outlook — with its concentration on the *bonitas* and so on of the stars in substances as the true operative core — was in many ways congenial to their own.

For these reasons the elucidation of the Lullian Art is important for the historian of alchemy. In particular the use of colours in the Art to designate the elements may have a bearing on alchemical symbolism. It is useless to study the figures and letter-combinations of the great Lullian Arts unless these are printed in the colours which they have in the manuscripts, as was done in the plates of the Mainz edition. For example, the two 'Elemental Figures' of the *Ars demonstrativa* (Pl. 3b, c) are printed in the plates of the Mainz edition with the names of the elements in four colours (not always the same element in the same colour). Without these colours, it is impossible to follow the printed text which accompanies these

figures.<sup>63</sup> This text connects the 'Elemental Figures' with *bonitas*, *magnitudo*, and so on.

Any serious attempt to grapple with the Lullian Art must use, not only the figures from the *Ars brevis*, but also the far more complicated figures of the unabbreviated Arts, and those in colour.

#### OTHER EVIDENCE OF LULL'S ATTITUDE TO 'ELEMENTAL ASTROLOGY'

Before any large-scale attack on the Art can be made, we must try to discover all that we can about the outlook behind it. A vast and virtually unknown country lies waiting here for exploration. Lull was one of the most prolific authors who ever lived. Only a small proportion of his work is generally known, and much of it is still unpublished. The *Tractatus de astronomia* is only one of the unpublished works which have a bearing on his attitude to astrology, and on astrology in the Art. There are numerous others of equal, perhaps even greater, importance from this point of view. There are others again, of vital importance for this line of inquiry, which have been printed – but in editions now so rare that they might just as well be unpublished and are, in fact, more accessible in manuscript form. In the Appendices to this article, I try to indicate some of this almost unknown and unstudied material.

The early Lullists were not so ignorant of these writings as we are, for they worked from manuscripts of which there are still vast numbers and there must have been still more in earlier times. Lull wished the knowledge of his Art to be disseminated as widely as possible and very numerous copies were made of the works connected with it.

Apart from all this buried treasure, there is the corpus of Lull's writings which is accessible in print but which has never been examined for traces of the interests and outlook now revealed to us by the *Tractatus de astronomia*. People have searched the printed works for Lull's views on alchemy; but not (so far as I know) for his elemental theory. In the following pages we shall glance at some of the printed works to see what we can find. The survey will be far from complete. I have not read all of Lull's printed works, and those which I use here, and from which I quote, could be made to yield far more than I have drawn from them.

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### THE *LIBER CONTEMPLATIONIS IN DEUM*

This stupendously long work was one of Lull's earliest productions, and was written about 1272. Said to have been first written in Arabic, it exists in both Latin and Catalan versions.<sup>64</sup> It is an encyclopedia covering the whole creation – both macrocosm and microcosm, both the world of nature and the world of man – and expounding the ways of God in the Creation and Redemption of the world. Written throughout in a vein of extreme mystical fervour, it shows Lull moving towards the vision in which the Art was revealed. Salzinger says that he first understood the 'secret' of the Art in the long and very extraordinary allegories in the fifth book, which he interpreted (rightly or wrongly) in terms of the Art.<sup>65</sup> We shall not attempt to follow Salzinger into those mysteries, but it is certainly true that the materials of the Art are present in this work.

The first book of the *Liber contemplationis* is on Divine Attributes, of which it discusses eight, namely Infinity, Eternity, Unity, Trinity, Power, Knowledge, Goodness, Truth. It will be seen that some of these correspond to the principles of the 'Alphabet' (Pl. 1a) of the Art, particularly if the meanings of A in the 'Alphabet' are included. The introductory part of this book which is on 'Joy' might correspond to the 'Glory' of the 'Alphabet'. Lull is here, as it were, feeling after the choice of the divine principles which he will later use.

The second book is on the created universe as divine revelation, ending with man. The third book continues on man, in all his aspects, including man in society, and on ethics. The fourth is philosophical and theological and aims at proving the articles of the faith. The fifth is on love and prayer, and contains the allegories which Salzinger thought so important.

The material for which we are looking is in the second book which, in going through the created world as the revelation of the attributes of God, deals with angels, with the heaven or firmament in which are the signs and planets, with the elements through which the influence of the heaven comes into all created things, with the animal and vegetable worlds, with metals (on which there is a long section), and with man – the last subject being continued in the next book. As will be seen, Lull is working through what will later be the 'subjects' of the Art, *Deus*, *Angelus*, *Coelum*, *Homo*, and so on.

It is repeatedly stated that the elements of which all terrestrial substances are composed depend on the heaven.



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Thine is the work of great artifice and order, that Thou willest that there should be in the firmament signs and planets through which the elemental bodies existing among us may be regulated and ordered.<sup>66</sup>

And

Thou willest, O God, that the bodies of the firmament should have dominion over and action on the *elementata*.<sup>67</sup>

And the intense preoccupation with the movements and behaviour of the celestially ordered elements – the interest which was to be one of the mainsprings of his thought and Art – is already prominent in this early work in which he contemplates the ordered distribution and movements of the elements and the

concatenation and ligature . . . through which fire is hot in itself and dry through earth; air is moist in itself and hot through fire; water is cold in itself and moist through air; earth is dry in itself and cold through water.<sup>68</sup>

Here is the emphasis on the distinction between the 'proper' and 'appropriated' qualities in the elements which was to play such a part in his system of doing astrology.

Though the *Liber contemplationis* follows a mystical trend which is common to all religious tradition in its contemplation of the revelation of the divine in the patterns of the universe, we can see already present in it the peculiarities of Ramon Lull who was not only a mystic but a mystic who sought to demonstrate scientifically the object of his love. In the *Liber contemplationis*, the 'artista' is feeling after his Art.

## THE DOCTRINA PUERIL

It is said to have been during Lull's retirement on Mount Randa in 1274 that the Art was fully revealed to him by God in a vision (Pl. 6a), and it was after this that the *Ars generalis* or *Ars magna* took shape. Not long after the vision, he visited Prince James of Mallorca



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at Montpellier and probably there composed two works, the *Libre del orde de cavalleria* and the *Doctrina pueril*.<sup>69</sup>

The *Doctrina pueril* belongs to the pedagogic class of Lull's works, and is a book of general knowledge for the young which he dedicated to his son. This compact little encyclopedia, written after the full revelation of the Art, should be read by all students of the Art.

A chapter in the work treats of the arts of geometry (which is introduced with a reference to the astrolabe), arithmetic, music and astronomy. Of astronomy, Lull says:

Astronomy is a demonstrative science through which man has knowledge that the celestial bodies have dominion over and operate upon the terrestrial bodies, and it shows that the virtue which is in the celestial bodies comes from God who is sovereign over the heavens and over all that is.

You must know, my son, that this is a science which belongs to the 12 signs and the 7 planets, according to whether these concord or contrast in heat, dryness, cold, and moisture; for it is according to this that they have operation on terrestrial bodies. . . .

Gentle son, I counsel thee not to learn this art, for it is of great difficulty and one may err in it; and it is dangerous, for the men who understand it best use it ill, for the sake of the power of the celestial bodies ignoring and despising the power and the goodness of God.<sup>70</sup>

We have here, digested into a few sentences, a simplified form of the doctrine of the *Tractatus de astronomia*, including the warning of its preface against erroneous astronomy. To do this science through the concords and contrasts of the elemental qualities would be to do astrology by the ABCD method. And we note too that *bonitas*, *potestas*, *virtus*, come into the discussion of the power of the stars.

There is a great deal more on Lull's elemental theory in the *Doctrina pueril*, in the chapter on medicine (which gives in a simplified form the theory of 'grading' expounded in the medical works), in the chapter on the 'science of nature', and in that on 'the four elements'. The importance which Lull attached to elemental theory is shown by the large amount of space given to it in this highly compressed pietistic and ethical handbook.

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### FELIX OR THE *LIBRE DE MERAVELLES*

About ten years later, Lull wrote an encyclopedia for adults, the *Libre de meravelles*, which imparts the Lullian world of knowledge, and the Lullian outlook, in the pleasing form of a story about the instructive adventures of a young man called Felix. More is revealed in this work than was suitable for the young readers of the *Doctrina pueril* to know.

The prologue to the work (which again can only be consulted in printed texts in Catalan)<sup>71</sup> invokes the *bonitas, magnitudo, eternitas, potestas, sapientia*, and *voluntas* (to translate the Catalan words into terminology more familiar to us) of God and states that it will treat of God, Angels, the Heaven, the Elements, Plants, Metals, Beasts, Man, Paradise, and Hell.<sup>72</sup> The work does in fact follow this plan, in which we may recognize variations on the *Deus, Angelus, Coelum*, etc., of the Art.

At the opening of the story, Felix is a prey to religious doubt owing to the sad fate of a fair shepherdess in whom he was interested. But a holy hermit proves to him the existence of God by various arguments, one of which involves taking a stick and drawing a circle round Felix which represents 'the firmament'.<sup>73</sup> The Trinity is proved by arguments which seem to recall St Augustine's *De Trinitate* and which also use the 'dignitates' or divine attributes *bonitas, aeternitas* and so on (the concepts used are not quite the same as in the Art). And in the chapter on the Virgin Mary, it is stated as an analogy (or is it more than that?) to her immaculacy that 'in every body composed of the four elements, one element enters into another element without either of them corrupting the other'.<sup>74</sup>

After the first book on *Deus*, comes a short book on *Angelus*, and with the third book we reach the subject *Coelum*. 'Bel ami,' inquires Felix of a shepherd, 'how is it that the stars which are in the firmament, and the planets, are influent on the four elements, and on that which is composed of the elements?' He is told, amongst other things, that 'by participation of the essence of the celestial bodies in the terrestrial comes the influence of which you ask.' Felix next asks whether in the twelve signs and the seven planets there are heat, moisture, cold and dryness. The shepherd replies that astronomers have appropriated the four qualities among the twelve signs and the seven planets because it is through their influence that these are stronger at one time than at another in terrestrial things.<sup>75</sup>

In answer to the question as to whether fate or the stars are 'necessary', the shepherd says that God has power to alter the

influences of the constellations according to whether he wishes to judge or to pardon men.

In short, the attitude to the stars here again seems to be that of the *Tractatus*, with its denial of necessity and its emphasis on the elements. When at the beginning of the next book on 'The Elements' we find a king having his elder son taught natural science because the knowledge of this is more useful for the art of government than that of arms<sup>76</sup> we feel inclined to suppose that this 'natural science' may have included the improved method of doing astrology through the elements which the preface of the *Tractatus* advises for princes and magistrates.

The instruction on the elements in this book takes the form of a long lecture given by a philosopher to the king's son and his suite, which Felix attends.<sup>77</sup> The king's son compares the elemental processes with those by which justice engenders charity in a sinful man. And he further seems to compare correspondencies and contrasts amongst virtues and vices with those amongst the elements. And then he goes on to compare the engendering of the Son by the Father, with the giving by God of virtue to the elements that they may engender their like.<sup>78</sup>

The transitions from elemental theory to law and ethics, and to theology — which seem to the king's son to arise so obviously from the philosopher's lecture on the elements — occur again and again in the books which follow on plants, metals, beasts, and man. In these books, Felix is being led to contemplate the *bonitas*, *magnitudo*, *virtus* and other attributes of God as revealed in different forms on the steps of the ladder of creation. In every book, pages and pages are devoted to elaborate expositions of elemental theory working in plants, metals, beasts, and man. And in every book, the elemental theory leads immediately to theological analogies, often accompanied by lamentations that these things are not demonstrated more clearly to the Saracens so that they may thereby be converted to the Catholic faith. Moreover we are told again and again that all this is fully worked out in the *Ars demonstrativa*.

As one reads the pleasing tale of the adventures of Felix, which are set in a fascinating world in which Christian hermits, philosophers, abbots, knights and jongleurs, rub shoulders with Saracens, Jews, and other infidels, one realizes with increasing astonishment the utter precision of its plan. Felix is being conducted through the 'subjects' of the Art, and being taught to see on every step of the ladder of creation the *bonitas*, *magnitudo*, *virtus*, etc., of God as revealed in the working of the elements on all the steps. And this



revelation demonstrates to him the truth of the Incarnation and the Trinity.

In the book on 'Plants', Felix wanders through a wood in which he meets a philosopher who is seated under the trees reading a book beside a beautiful fountain. This philosopher has retired into the wood in order that through plants and trees he may contemplate, understand, and love their Creator. The philosopher tells him of a hermit who lives in the wood, 'looking at what nature does in trees and herbs', so that through that work he may contemplate God 'according to the art of philosophy and theology', which art is ordered 'according to the order of the *Ars demonstrativa*'.<sup>79</sup>

Sitting under the tree, the philosopher contemplates in it the *bonitas* and *magnitudo* of God (la granea e la bonesa de Deu). Felix asks how so great a tree can have come from a small seed. In reply he is told a story about a fire lighted by a peasant which grew great because the *virtus* of the fire was able to convert to itself things containing less *virtus*. Felix then asks a question about the *virtus* of Jesus Christ which was greater than that of men. The philosopher warmly compliments him on his intelligence in having asked this question (in relation to the problems of *virtus* in fire and in the tree) and tells him of a man who has an *Ars demonstrativa* for showing the truth to those in error, but to whom no one will listen.<sup>80</sup>

The philosopher spoke long to Felix about 'the generation of plants and how they signify that there is generation in God through which God the Father engendered God the Son without corruption'. This subject develops later into a story which the philosopher tells to Felix about a 'wise Saracen' who was disputing with a 'wise Christian'. The Saracen asked the Christian a question about the generation of the Son from the Father. The Christian in his reply said that generation in God is 'nobler' than that in trees, and went on from that to demonstrate the infinity, eternity, and incorruptible perfection of the Trinity.<sup>81</sup>

Leaving the wood, the philosopher and Felix come to a beautiful plain in which are growing many medicinal herbs having great *virtus*, given to them, so the philosopher explains, to signify the *virtus* of God. The philosopher imparts to Felix in this chapter information, interspersed with illustrative stories, about the precise virtues of medicinal herbs in accordance with their elemental *complexio*. For example, rhubarb is *calidus* and *siccus* (calt e sech) and the reason why it is good for fevers is because the hot and dry of fever has concordance with it and so adheres to it and so goes out of the patient's system with the rhubarb when the patient is purged.



This leads on to an astonishing story about how a heretic became convinced of the superior *virtus* of the Christian faith, to the demonstration of *virtus* in the Three Persons of the Trinity, and to a discussion of the 'vegetative nature' in Christ in connexion with the homage paid to him by plants on Palm Sunday.<sup>82</sup>

There is much more of the same kind of thing in the book on metals. This book, by the way, contains a chapter on alchemy in which Lull states his disbelief in the possibility of the transmutation of metals and seems to be 'against' alchemy.<sup>83</sup> Together with the misreading of the preface to the *Tractatus de astronomia* as 'against' astrology, this passage has done much to throw people off the scent as to the true nature of the Lullian system. There is less direct reference to elemental theory in the book on beasts which consists mainly of a long and interesting allegory. The book on man is full of the elements in relation to man, leading off all the time into theological analogies.

A very large part of the book on man is taken up with virtues and vices – each virtue paired with an opposite vice,<sup>84</sup> as in the 'Alphabet' of the Art (Pl. 1a), though more virtue-vice pairs are given here than in the *Ars brevis* alphabet. Many of the virtues and vices given in the extended list in the *Libre de meravelles* also appear in some of the diagrams of the Art to which such constant reference is made in the course of Felix's adventures – namely the *Ars demonstrativa*. The virtue-vice diagrams of the *Ars demonstrativa*, one of which is here reproduced (Pl. 3a), bear an obvious relationship to the Second Elemental Figure (Pl. 3b) of the same Art.

The last two books of the *Libre de meravelles* are on Paradise and Hell. In the former<sup>85</sup> we read of the divine *dignitates* of *bonitas*, *magnitudo* and so on in the angelic world, and in the latter the fiery torments of the damned are interpreted as a hellish reversal of the true elemental processes.<sup>86</sup>

The adventures of Felix are highly instructive to the student of the Lullian Art, and there can be little doubt that the work was intended to popularize the Art and to present its principles in a simplified and pleasing form. It showed the fundamental importance of the influence of the heaven on the elements, and of the study of the elements in all terrestrial substances, in plants, in metals, in animals, in man. It showed how this study revealed the presence of the divine *bonitas*, *magnitudo*, *virtus* and so on present on all the steps of the ladder of creation. And it showed how by analogy from the divine-elemental workings one could perceive the workings of virtue and vice in ethics and law, and – most important of

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all – could demonstrate to the Saracens and all unbelievers in an infallible manner the divine workings in the Trinity and the Incarnation.

It shows to us the crucial role of the Lullian elemental theory for the whole of the Lullian Art. It was amongst the trees and the plants that the hermit was working out the *Ars demonstrativa*, the art of 'philosophy and theology' through which truth could be demonstrated. The workings of the medicinal herbs demonstrated the workings of Faith. Felix's adventures among the plants should send us back to look at the 'Tree of Medicine' (Pl. 2), where BCDEFGHIK are seen working together with ABCD to form an Art by which 'metaphorically' we may understand Law and Theology. And, as we know from the *Tractatus de astronomia*, the arts of medicine and of law were done by 'astronomy'.<sup>87</sup>

Some of the diagrams in early manuscripts of the *Ars demonstrativa* make very clear the basis of that Art in elemental theory. We reproduce (Pl. 4) a page of *Ars demonstrativa* diagrams from a manuscript in Paris which may be contemporary with Lull. It shows the wheels of 'Theologia', 'Philosophia', and 'Ius' in close relation to the wheels of the 'Elementa'. The curious thought-transitions of the characters whom we meet in the *Libre de meravelles* are due to their thorough training in the Art.

## BLANQUERNA

The story of Felix connects with the romance of *Evast and Blanquerna*<sup>88</sup> (written at Montpellier between 1283 and 1285). Blanquerna retired into a forest to contemplate, emerged from thence as a great teacher, and eventually became Pope. In this book, as in the adventures of Felix, there are constant references to the Art.

Blanquerna's early education is significant. He learned grammar, logic, rhetoric, natural philosophy, medicine, and theology. And he learned medicine out of Lull's own 'Book of the Principles and Grades of Medicine'<sup>89</sup> (that is the *Liber principiorum medicinae*), from which it follows that he must also have studied the *Tractatus de astronomia*, or the teaching contained in that book, without which the medical theory cannot be understood. After studying the book on medicine he proceeded with great facility to the study of theology.

On emerging from the forest, Blanquerna became instructor to

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the monks in a monastery, expounding to them 'by the natural arguments of philosophy how the creatures give knowledge of the Creator and his works',<sup>90</sup> and through his teaching the monks increased greatly in virtue. Blanquerna promised them that they would be able to learn in a year the 'art' of the four general and most necessary sciences which are theology, natural philosophy, medicine, and law.<sup>91</sup> It is clear that the monks were taught the Lullian Art of medicine with its 'metaphorical' connexions with law and ethics, with philosophy and theology.

When Blanquerna became Pope he did what Lull so often urged in vain on real Popes, he encouraged the teaching of the Lullian Art. At the request of an 'artista', the teaching of theology, natural philosophy, medicine and law was reformed and taught by the methods of the Art.<sup>92</sup> The 'natural philosophy' which was thus reformed must have been, I would suggest, the science of 'elemental astrology' with its close connexions with medicine, and thence 'metaphorically' with law and with theology.

In *Blanquerna* there are long sections devoted – as in the story of Felix – to the pairing and contrasting of virtues and vices. When Blanquerna became Pope, a teacher was appointed whose office it was 'to show by means of nature (*per natura*) how man could mortify within himself the vices, and strengthen the virtues'.<sup>93</sup> This teacher no doubt knew how to use the 'elemental' diagrams of the Art (Pl. 3b, c) as analogous to the 'virtue-vice' diagrams (Pl. 3a).

The visions of the hermits of *Felix* and *Blanquerna* under the trees are all repetitions of Lull's own vision. The artist who depicts this (Pl. 6a) shows Lull as a hermit under two trees, who develops, like the hermits of the romances, into the teacher of the Art.

The tree – as well as its other meanings<sup>94</sup> – had, I believe, for Lull the meaning of representing the working of the elements in nature, particularly in the vegetable world so essential for the art of medicine; and this was the fundamental 'exemplum' upon which he based his Art (as will become more apparent in a later section of this article).

## THE *LIBRE DEL ORDE DE CAVALLERIA*<sup>95</sup>

In the *Book of the Order of Chivalry*, an old knight has retired from the world to become a hermit in a wood, meditating every day under a tree well covered with fruit near a clear fountain.<sup>96</sup> Here a squire comes upon him (Pl. 5a, b), whom he instructs in the



virtues and in the rules of chivalry, presenting him with a book on that subject.

This work contains the usual virtue-vice pairs,<sup>97</sup> which we know from *Felix* and *Blanquerna* (though the *Order of Chivalry* is earlier than both those works, having been written at about the same time as the *Doctrina pueril*). Its world is that same world of forests, knights, clerics, in which we have become accustomed to look for allusions to the Art. And there can be no doubt, I think, that the book of the rules of chivalry, based on the knight's duty to defeat (or 'devict') vices by virtues, is a branch of the Art for the use of knights.

From *Blanquerna*, it would appear that it was a part of Lull's missionary and crusading plans that the knights who went on the crusade should be instructed in the Art, so that they should be able to convince the infidels either by arms or by arguments, or both. Pope Blanquerna advises the 'Masters of the Temple and of the Hospital' (that is, of course, the leaders of the two great crusading orders) that they should arrange schools 'wherein their knights should learn certain brief arguments, by means of the *Brief Art of finding Truth*, that they might prove the articles of the Holy Faith' and so maintain it 'by feats of arms or by learning'.<sup>98</sup> It is fitting therefore that the 'hermit under the trees' should appear in the *Book of the Order of Chivalry* as the instructor of knights. Like the other hermits, he no doubt taught how to deduce, not only ethics and law, but also philosophy and theology from the book of nature, or of the creatures, of which the tree was the example. One of the Karlsruhe miniatures illustrating the life and work of Lull shows the 'principles' of the Art attired as knights, and going forth to devict infidelity and error (Pl. 6b).

First written in Catalan, the *Book of the Order of Chivalry* became a standard text-book for the rules of chivalry. It was widely disseminated in beautiful French manuscripts and early printed in various languages. In the English translation by William Caxton, it was popular and may have been known to the poet Spenser. Its opening words state that as God rules over the seven planets which have power over terrestrial bodies, so ought kings and princes to have lordship over knights. Therefore

To signify the seven planets, which are celestial bodies and govern and order terrestrial bodies, we divide this Book of Chivalry into seven parts.<sup>99</sup>



THE *LIBER DE ASCENSU ET DESCENSU INTELLECTUS*

The *Book of the Ascent and Descent of the Mind* was written about 1305. The first printed edition<sup>100</sup> is illustrated by a helpful woodcut (Pl. 7a), which shows the ladder of ascent and descent – the steps of which are labelled Lapis, Flamma, Planta, Brutum, Homo, Coelum, Angelus, Deus.<sup>101</sup> The plan of the book follows this scheme, which is roughly that of the 'subjects' of the Art; and the prologue states that the method followed will be that of the *Ars generalis*, which shows how to ascend from inferior to superior things, and vice versa.

We shall not begin, as the book does, at the bottom of the ladder, but take a flying leap to the step *coelum*.<sup>102</sup>

Here we find, under the 'action of the heaven' the list of the twelve signs and the seven planets, with a short account of their characteristics, and in each case is noted the elemental affinity. It is like the list of the 'old principles' in the *Tractatus de astronomia*, though much less full on the characteristics of the signs and planets. And though the list seems meant primarily to draw attention to the elemental affiliation of each sign and planet, it does not assign to them the ABCD elemental notation, as in the *Tractatus*.

Under the 'nature of the heaven' are listed the eighteen principles – *bonitas*, *magnitudo* and so on (i.e., the meanings of B to K as *absoluta* and *relata* in the alphabet of the Art) with the exception of *contrarietas* which, of course, is not substantially in the heaven but only *per accidens*. Also *sapientia* becomes *instinctus*, and *voluntas* becomes *appetitus* as in the *Tractatus*. In each case it is stated that these 'principles' are the true causes of things here below. For example, the *bonitas* of heaven causes the inferior *bonitates*, as the *bonitas* of a stone, a plant, a lion, or of the body of a man.

In short, what we have here is an abbreviation of the *Tractatus de astronomia*, with its list of the signs and planets as the 'old principles' of astronomy, followed by the 'principles' of *bonitas* and so on which are the true influence of the heaven.

We may now start at the bottom of the ladder and give some quotations from the various steps of the ascent to see how this works out.

In the discussion of 'stones' on the first step,<sup>103</sup> Lull gives examples of the characteristics of various stones. For example, the stone jasper has the power of stanching the flow of blood from wounds. The intellect 'descends' to inquire into this operation of the stone jasper, and considers that 'the super-celestial bodies are

naturally the first cause of this . . . as Saturn which is *siccus et frigidus* and causes the dry and cold of jasper through which it has the power of stanching blood.'

Then the intellect doubts, and inquires further what can be the medium between jasper and Saturn which is outside the *genus* of coldness and dryness. And then the intellect 'believes that the medium is the natural *bonitas* of jasper and Saturn, and their *magnitudo* and so on; and the reason why it believes this and does not know it is because it does not have experience of this through sense.'<sup>104</sup>

We can easily recognize this as a rather more cautious form of the theory of the *Tractatus* through which *bonitas*, etc. influence their similitudes on things below and are the true medium of the influence of the heaven on the elements.

On the step *planta* of its ascent and descent, the *intellectus* inquires into the problems arising from mixing herbs in medicines, such as are discussed at length in Lull's medical works. It wants to know what will happen when lettuce, which is cold and moist, is mixed in an electuary with rose which is dry and cold. It 'descends' to learn this, and understands that since lettuce is cold *per se* and rose is cold *per accidens*, the former will be stronger than the latter.<sup>105</sup> We recognize this as the principle of 'devictio'. There is much here, too, on the 'graduating' of medicines, and through studying these matters the intellect is able to move up and down the ladder from this step.

So through the elements and their relation to the true principles of heaven, the intellect moves up and down the ladder of being. Above the heaven, in the angelic world,<sup>106</sup> the 'principles' *intellectus* and *appetitus* become *sapientia* and *voluntas*; and on the top of the ladder,<sup>107</sup> with *Deus*, the principles emerge in their true glory. *Bonitas*, *magnitudo* and the rest are here the 'dignitates Dei'. The existence of God is proved, also the Trinity and the Incarnation, very briefly but to the satisfaction of the intellectus. This work shows very clearly the integration on the step *coelum* of the ladder of the down-flowing divine principles with astrological influences, whence the divine principles are manifested, through the workings of the star-controlled elements, at lower stages of the ladder. Hence the pattern of the elements is of prime importance to the intellect as it descends from, or rises to, God through his vestiges in creation, or the 'Book of Nature'.

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### THE ARBOR SCIENTIAE

We have found an abbreviated version of the *Tractatus de astronomia* on the step *coelum* of the ladder of ascent and descent. In the forest of trees into which we are now about to force a way we shall find on the Tree of the Heaven practically the whole of the theory of the *Tractatus* given in a very illuminating form and related to all the other Trees in this forest of knowledge, the *arbor scientiae*, which Lull states that he wrote for the purpose of explaining his Art.

The Forest Encyclopedia belongs to an earlier period of Lull's life than the Ladder Encyclopedia. It was written during the autumn and winter of the year 1295 when Lull was in Rome trying, without success, to interest Pope Boniface VIII<sup>108</sup> in his missionary and crusading plans which included as their mainstay the propagation of the great Art. It was during this year that he wrote the poem entitled *Desconort* ('Disconsolateness') in which he pours out his profound depression at his failure and in which occurs the stanza which we quoted on an early page of this article where the Art is defined as 'an *Ars generalis*, newly given by the gift of the Holy Spirit through which one may know all natural things . . . valid for law, for medicine, and for all sciences, and for theology which I have most at heart. No other Art is of such value for resolving questions, and for destroying errors by natural reason.'<sup>109</sup>

The opening words of the prologue to the *Arbor scientiae* present Ramon Lull disconsolate and tearful, and 'singing his *Desconort* beneath a great tree, to alleviate somewhat the grief which he had when he could not accomplish in the court of Rome the sacred work of Jesus Christ and the public weal of all Christendom.' A monk heard Ramon singing and came to comfort him. When he learned the cause of his sorrow this monk advised him to compose an encyclopedia of the sciences which should be less subtle to the understanding than his great Art.<sup>110</sup> That is, he advised Lull to present the principles of his Art in a more popular form which would make it more widely known and acceptable. Lull decides to take this advice, and, reflectively considering a beautiful tree covered with leaves and fruit, he resolves to present the simplified and popular form of the Art in the form of the *Arbor scientiae*.

We are again strongly reminded of how the philosopher in the *Libre de meravelles* initiated Felix into all wisdom from the plants and trees. And we cannot doubt that if only Blanquerna, and not Boniface VIII, had been Pope, the *Arbor scientiae* would have been joyfully accepted at the court of Rome.



The *Arbor scientiae* is a work of colossal length, though not quite as long as the *Book of Contemplation*. The Catalan version of it has been published in the Palma edition.<sup>111</sup> The most modern Latin editions of it are two published at Lyons in 1635 and 1637,<sup>112</sup> for it is not included in the Mainz edition — though Salzinger in his 'Revelatio'<sup>113</sup> made use of its Tree of Heaven, in conjunction with his manuscript copy of the *Tractatus de astronomia*, as one of the main keys to the arcana of the Art.

The fifteenth-century manuscript of the Catalan version in the Biblioteca Ambrosiana contains an illustration which shows Ramon and the monk at the foot of the Tree from which all the sciences branch off.<sup>114</sup> The illustrated printed editions also give an inclusive Tree-diagram, showing all the sciences as branches of it, with Ramon and the monk at its foot (Pl. 8a); they also give separate Tree-diagrams for each science (Pl. 8b, c, d; Pl. 9).

There are sixteen Trees in the Lullian Forest. Each is divided into seven parts — roots, trunk, branches, twigs, leaves, flowers, and fruit. Most of them have eighteen roots, and these are the meanings of BCDEFGHIK as *absoluta* and *relata* in the 'Alphabet' of the Art. There are some variants of this eighteen-root system in the later Trees, but all of them connect with it. The Trees are, therefore, the Art in tree form.

To give any idea of the immense complexity and ingenuity with which Lull works out the Tree allegory would involve writing a book as long as his. The following is the skeleton outline of the scheme.

1 *Arbor Elemental*is (Pl. 8b). Rooted in BCDEFGHIK, the trunk of the Elemental Tree is a confused body called chaos. Its branches are the four simple elements. Its twigs are the elements mixed. Its fruits are the *elementata*, that is, all things in the sublunar world which are all composed of the four elements — as a stone, an apple, a bird, a fish, a lion, a man, gold and silver.

2 *Arbor Vegetal*is (Pl. 8c). BCDEFGHIK and the Elements in the vegetable world. As the fruits of this tree, Lull outlines the system of elemental grading in herbs which was the basis of his medicine.

3 *Arbor Sensual*is. BCDEFGHIK and the Elements in relation to the five senses and animal nature.

4 *Arbor Imaginal*is, tree of imagination or of mental images, which are similitudes of things on all the preceding trees (therefore similitudes of BCDEFGHIK and the Elements).

5 *Arbor Humanal*is, the Tree of Man. Rooted in BCDEFGHIK,



but these roots are double, corporal and spiritual, involving, for example, *bonitas corporalis* and *bonitas spiritualis*. It has corporeal branches, elementative, vegetative, sensitive, and imaginative; and spiritual branches which are the three powers of the soul — *memoria*, *intellectus*, and *voluntas*. Included in this tree are all the arts and sciences.

6 *Arbor Moralis* (Pl. 8d). This has eighteen good roots, BCDEFGHIK, and five bad roots; and divides into two parts, the Virtues leading to *Gloria* and the Vices to *Pena*.

7 *Arbor Imperialis*. Has the same good and bad root system as the *Arbor Moralis*. The Tree of the Temporal Hierarchy from the Emperor downwards.

8 *Arbor Apostolicalis* (Pl. 9a). Also has the root system of the *Arbor Moralis*. The Tree of the Spiritual Hierarchy, from the Pope downwards.

9 *Arbor Coelestialis* (Pl. 9b). The Tree of Heaven. Its roots are BCDEFGHIK, with the exception of *Contrarietas*, which is not in the heaven. Unfortunately the illustration in the printed editions makes a very bad mistake in not omitting one of the eighteen roots for this Tree. The trunk of the Tree is the heaven; its branches the twelve signs; its twigs the seven planets.

The theory of this Tree, which is that of the *Tractatus de astronomia*, will be examined in more detail later.

10 *Arbor Angelicalis*, the Tree of Angels.

11 *Arbor Aeviternalis*, the Tree of Eternal Rewards and Punishments.

12 *Arbor Maternalis*, the Tree of the Virgin Mary.

13 *Arbor Christianalis* (Pl. 9c, incorrect), the Tree of Jesus Christ.

14 *Arbor Divinalis* (Pl. 9d), the Tree of the Trinity.

15 *Arbor Exemplificalis*, the Tree of Examples in which the matter of all the preceding trees is expounded in allegorical stories.

16 *Arbor Quaestionalis*, questions propounded and answered about all the Trees.

Roughly speaking, it may be said that the sequence of Trees 1 to 14 again conducts us up the Ladder of the subjects of the Art from the elements to *Deus*.

THE TREE OF HEAVEN AND THE ELEMENTAL TREE

I think we may compress very briefly the correspondencies between the Tree of Heaven and the *Tractatus de astronomia*, for the outlines of the theory are now familiar. Once again, in the Tree of Heaven,<sup>115</sup> Lull takes us through the twelve signs and the seven planets and their characteristics, insisting above all on their elemental affinities. Once again we go all through the *bonitas* and so on series (except for *contrarietas* which is not in the heaven), insisting that these are the true influences of heaven, and combining these influences in the same peculiar way with those of the signs and planets. Once again there is the insistence that it is the 'similitudes' of these things and not their actual essence which are imprinted on things below. Very often the actual language is practically the same as in the *Tractatus*. And if the Elemental Tree<sup>116</sup> is read in conjunction with the Tree of Heaven – to which, of course, it corresponds, and the influences running between these two Trees run also through the intervening Trees, except that man has free-will through the Moral Tree to withstand the stars – we can learn from these two trees most of Lull's astrological-elemental theory, though not the actual working of elemental astrology through the 'deviction' theory.

But the Tree of Heaven should be very carefully compared with the *Tractatus*, for there are things in the former which are not in the latter.

For example, in discussing the errors of 'old astronomers' in the Tree, he complains that the old astronomy may be wrong in some of the elemental correspondencies which it attributes to the stars, and that these possible errors are an inconvenience to 'ars nostra'.<sup>117</sup> He suggests that the Pope and the Cardinals ought to look into the errors in 'astronomy' and have it put into better order, and this investigation could be made 'according to the method of this book with the help of the method of the *Ars inventiva* and the *Tabula generalis*'.<sup>118</sup> This throws an interesting light on Lull's mission at Rome, the failure of which had made him so disconsolate. Did part of it consist in trying to get the Pope and the Cardinals to sponsor a reform of astrology through the Art?

Apart from interesting hints of this kind, of which there may be more, the *Arbor scientiae* is valuable because it makes somewhat clearer than does the *Tractatus* a very important part of Lull's astrological-elemental theory, which we must now attempt to expound.

He regarded the all-important relationship between the elements and the heaven — the basic pattern of the physical structure of the universe — as expressible in terms of three geometrical figures, the circle, the triangle, and the square. Salzinger cast his 'Revelatio' of the secret of the Lullian Art in the form of a dialogue between himself and the Master, and at one point he puts into Lull's mouth the statement that the circle, the triangle, and the square 'contain the whole secret of my Art'.<sup>119</sup> For corroboration of this, Salzinger refers the reader to the 'Arbor Elemental' and the 'Arbor Celestialis' of the *Arbor scientiae*, to the *Tractatus de astronomia*, and to some of the medical works.

In the Elemental Tree there is the following passage:

The four elements . . . are figured in the *elementata* in the figures of a square, a circle, and a triangle. In the square figure, there is a straight line from fire to air which concord in heat, from air to water through concord of moisture, from water to earth through concord in cold, and from earth to fire through concord in dryness. . . . In the circular figure the elements enter into one another; fire enters into air giving it its heat . . . air enters into water giving it its moisture . . . water enters into earth giving it its coldness . . . earth enters into fire giving it its dryness. . . . The triangular figure is caused by the line going from fire to air, and from fire to earth, and from earth to air. And this triangle is composed of two concurring lines and one contrasting line. And the same is true of the triangles air, fire, water; water, air, earth; earth, water, fire. And thus there are four triangles which fill the square, and the square fills the circle.<sup>120</sup>

The concords and contrasts of the elements depend, as we know, on the heaven, and were worked out in terms of ABCD in the *Tractatus*. If one represents ABCD in these geometrical patterns (see Fig. 1.2) one has the figure shown on the next page (in which, for convenience sake, I represent the heaven of the twelve signs and the seven planets by one circle only). And if the geometrical elemental patterns are expressed by alphabetical notation one has for the 'circular' and the 'square' patterns, sequences like AB, BC, CD, DA, AB, and so on; and for the 'triangular' patterns, sequences like AB, BD; DC, CA; AC, CB; BD, DA. The realization that letter-sequences can follow circular, quadrangular, and triangular patterns is of fundamental importance for the Lullian Art.

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The 'trunk' of the Tree of Heaven and the 'trunk' of the Elemental Tree 'se respiciunt'

although the superior trunk does not enter into the inferior trunk, nor does the inferior enter into the superior in so far as they have discrete quantity, but the influence of the superior comes into the inferior through the continuity of the general quantity, in which are both trunks.<sup>121</sup>

Since both trunks are rooted in the *bonitas*, and so on, series, and it is through this that the influence of the 'superior' quantity comes into the 'inferior' quantity, it would follow that the letters BCDEFGHIK could follow the circular, quadrangular, and triangular patterns in their sequences in the Art.

The best approach to these mysteries would be through the 'Elemental Figure' (Pl. 3b, c) for Lull works out the arrangement in this of the elements in circular, quadrangular, and triangular sequences.<sup>122</sup> What he says can be clearly followed on the Figure, if this is studied in colour.

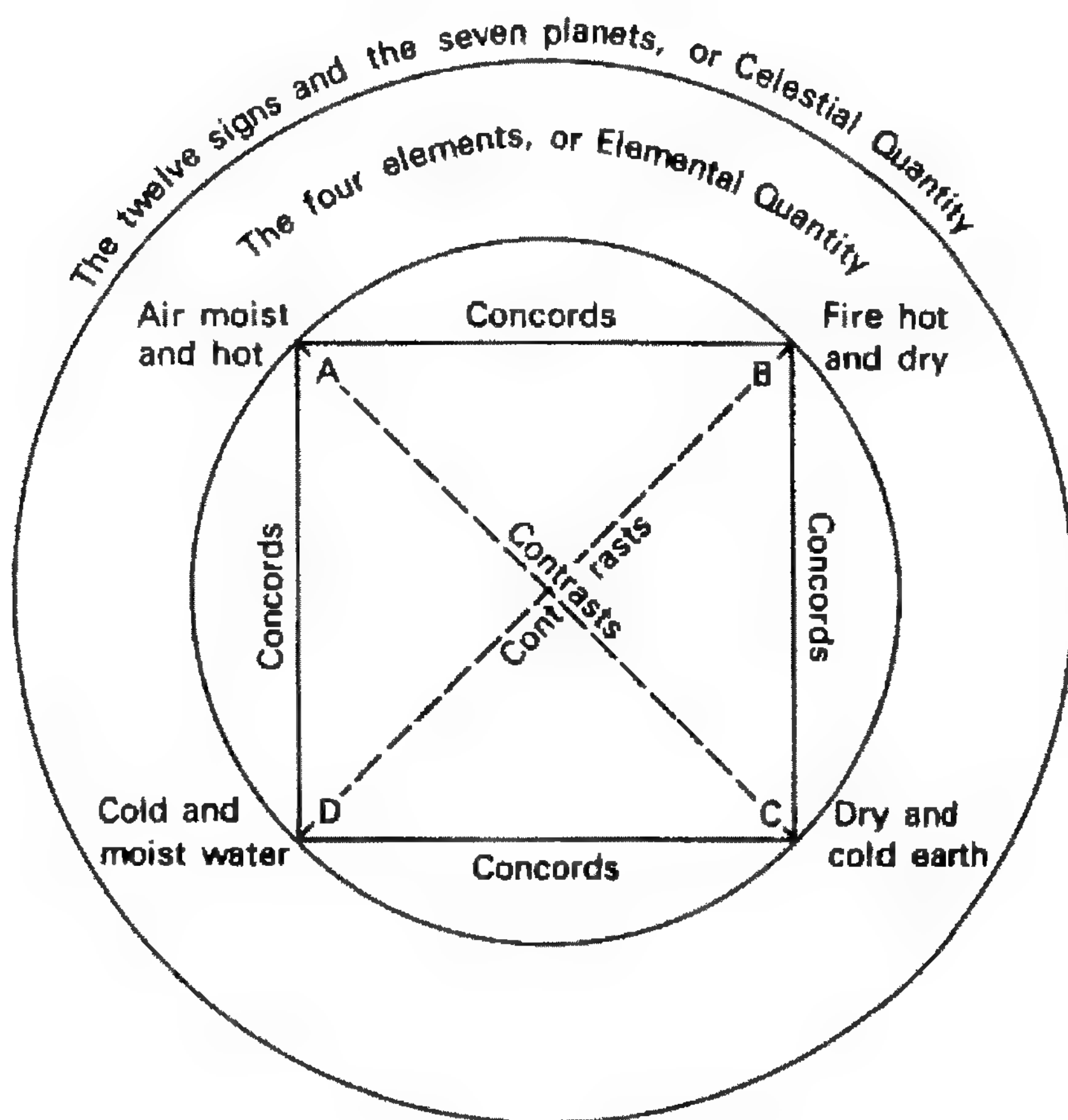


FIGURE 1.2



If one can get hold of how circular, quadrangular, and triangular progressions work in the Figure in connexion with the 'devictio' principle, one will understand how the Elemental Figure is also the 'Ladder' rising through the elements to the 'Dignitates Dei', to *bonitas* in the divine world.

The geometrical mysteries of the Elemental Figure should be studied in connexion with Lull's two geometrical works, the *De nova geometria* and the *De quadratura et triangulatura circuli*. As Professor Millás Vallicrosa has pointed out in the introduction to his recent edition of the *De geometria nova*,<sup>123</sup> the work contains astrological material. The two geometrical works relate closely to one another<sup>124</sup> and both have a bearing on the Art. They are probably as fundamental for the approach to the Art as the *Tractatus novus de astronomia*. With the 'new' astronomy, there went a 'new' geometry. If these works (and the other material indicated in the first Appendix to this article),<sup>125</sup> are studied in relation to the Art, it may be possible eventually to understand how the geometry of the elemental theory worked in the Art.

Pending this solution, I will conclude these remarks on what Salzinger regarded as the fundamental secret of the Lullian Art by quoting the following little story from the 'Arbor Exemplificalis' of the *Arbor scientiae*. It seems to be an extremely curious geometrical version of the Judgment of Paris:

It is narrated that Circle, Square, and Triangle met together in Quantity, who was their mother, and who was holding a golden apple. She asked her sons if they knew to which of them the apple should be given. To which Circle replied that he ought to have it because he was the first-born and was greater and could run more strongly than his brothers. Square said that he ought to have it, because he was nearer to man than Circle, and greater than Triangle. Triangle, on the contrary, said that he should have the apple, because he was nearer to man than Circle, and more like God than Square.

Whereupon Quantity gave the apple to her son Triangle.

But Aries, and his brothers, and Saturn, and his brothers, reproved Quantity, saying that she had judged wrongly; because Triangle had no likeness to God in length, width, and depth, whereas Circle was like God, because he had no beginning nor end. And Square reproved Quantity saying that she had not judged well because he was more like God in the four elements than was Triangle; for without the four elements

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there would not be men, who exist in order that they may seek out and know God.

But Triangle excused his mother Quantity, saying that she had judged well, for he was more like the Soul of man and God the Trinity through the ternary number than were his brothers Circle and Square. Yet she had erred somewhat, for she had given him a *round* apple, which was not his figure.<sup>126</sup>

So Quantity, though she gave the prize to the triangle (the Trinity), gave it in the form of the circle (the heavens), on which depended the square (the elements), and so worked all the figures into the answer.

Thus I would interpret the enigma, but the reader may find other interpretations. He should ponder it well, for it is also the enigma of the Art of Ramon Lull.

## ELEMENTAL EXEMPLARISM

We have already touched on what I here propose to call Lull's 'elemental exemplarism'. The reader will remember how Felix and the king's son attended a lecture on the elements given by a philosopher and how the king's son immediately applied the teaching on the elements as a metaphor of correspondencies and contrasts between virtues and vices, passing immediately from that to comparisons between the virtues of the elements and the theology of the Trinity. These abrupt transitions from natural philosophy to ethics and theology went on all through the adventures of Felix. We suggested that Blanquerna's teaching of 'natural philosophy', medicine, law, and theology was based on similar 'metaphorical' applications of the basic elemental theory. We thought this also present by implication in the hermit's instruction, under the trees, of the squire in the virtues of chivalry. And we came to think that the 'tree' represented for Lull his basic *exemplum* of the working of the elements.

In the *Arbor scientiae*, or the 'Forest Encyclopedia' as we have called it, these kinds of comparisons, or metaphors, are developed and systematized to an extraordinary extent. Through studying them in this work one begins to realize that Lull must have believed that he had found in the elemental processes, particularly as worked out in the science of medicine, a pattern which could be used metaphorically, or as an exemplum, in ethics and theology with

such precision as to provide a way of — so to speak — mathematically calculating exemplarism.

For example, in the 'Arbor Moralis', we are told that the virtue of Prudence belongs most to the intellectual part of the soul 'as fire is stronger in pepper than are other elements'.<sup>127</sup> In the 'Arbor Apostolicalis' there is a long comparison between the Sacrament and elemental theory, ending with 'as in pepper fire has greater action and water greater passion, so in the Sacrament the superior forms have greater action, and the inferior forms greater passion'.<sup>128</sup> In the 'Arbor Angelicalis', we learn that 'Fire which heats pepper more than fennel, places in it more heat . . . for pepper can receive more than fennel. And so it is of the recalling, understanding, and loving of the angels, which is greater or less according to whether the objects are more or less suitable for them to recall, understand, and remember.'<sup>129</sup> In the 'Arbor Aeviternalis' it is said that the *bonitas* of St Peter is an appropriated quality which is against the *malitia* of Judas. 'As dry is the appropriated quality of fire with which it mortifies air and compels it to receive its heat, without which dryness fire could not heat air . . . so it is needful that to St Peter should be appropriated the quality of *bonitas* throughout eternity.' And 'in the glorified body of St Peter the actions and passions are in concordance without contrariety; as fire warming air, water, and earth in natural concordance.'<sup>130</sup>

In the 'Arbor Christianalis' we find such parallels particularly directed towards convincing the Saracens of Christian theology (we had examples of this also in the *Libre de meravelles*). For example:

the divine nature does not receive any alteration in the conjunction which it makes with the human nature: as fire does not receive any alteration in entering air through warmth but raises air to a nobler state through imparting to it its warmth through concordance, so the human nature is exalted in receiving the divine nature through concordance. Therefore the Saracens and Jews do wrong in denying the Incarnation of the Son of God, saying that God is altered . . . in being joined to man.<sup>131</sup>

Salzinger must have fully understood this argument, for he had placed on the title-page of the earlier volumes of the Mainz edition an engraving which could be entitled 'The Incarnation and Ignis' (Pl. 10a).

And, to take another example from the 'Arbor Christianalis':



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The Saracens say that the Christians believe that God had passion in human nature through hunger, thirst, heat, and cold, and on the cross through death. And therefore the wise Saracens [*Saraceni sapientes*] will not believe that God was man. And therefore the Christians do wrong in that they do not show to the wise Saracens their error in denying those passions; for the divine nature is affirmed in the human nature through those passions. As water which has passion through the heat of fire in pepper, and does not have passion through cold in the cucumber.<sup>132</sup>

Does not this last astounding quotation suggest that it must have been through what I have called 'elemental exemplarism' calculated by the Art that Lull proposed to demonstrate the Incarnation to the 'wise Saracens'?

The exact relevance of the comparisons with elemental processes made in the above quotations will not be fully clear to the reader because they use points in Lull's elemental theory which I have not fully expounded in the shortened and over-simplified account of it which I have given in this article (e.g. fire is 'nobler' than the other elements, two of the elements are 'active' and two 'passive'). But the comparisons are worked out with mathematical exactitude in accordance with his full theory, particularly the theory of the 'grading' of the elements in herbs.

If we now turn back to that fundamental work, the *Liber principiorum medicinae*, we shall find that the principles of elemental exemplarism (this expression is not used by Lull) are there quite clearly laid down.

The grades and triangles with which he worked his medicine (see Pl. 2) may be used 'metaphorically' of the virtues and vices.

The grades, triangles, and conditions of this Tree [i.e. the Tree of Medicine, Pl. 2] will reveal to thee how the virtues are joined with one another, and one vice with another vice; and how the virtues and vices are contraries.<sup>133</sup>

And by this same method, he says, one can also expound theology.

If one fully understands 'elemental exemplarism' one can work the Art, as Salzinger says, so that virtues 'devict' vices and truth 'devicts' error. It will be, perhaps, helpful to quote Salzinger on this. Having just explained the ABCD method and astrology by



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'devictio' (citing the *Tractatus de astronomia* on this), Salzinger goes on to say:

Devictio signorum, planetarum, elementorum, complexionum & humorum est metaphora significans devictionem virtutum & vitiorum: unde si perfecte sciveris Artem hujus metaphorae, & ab illa te convertes ad literam sui significati, practicando hanc nobilem Artem contra vitia, devincendo illa per virtutes in te ipso, majus imperium hac victoria referes, quam si armis expugnares totum imperium orientis, vel ipsam Terram Sanctam in tuam ditionem redigeres.<sup>134</sup>

In these words there are still – even in the eighteenth century – echoes of the old function of the Art as part of the Crusade, devicting vice by virtue, error by truth, thus converting the Saracens and regaining the Holy Land. They remind one of the picture of the principles of the Art as crusading knights (Pl. 6b).

In two of Lull's best-known works on the conversion of the infidels, the argument takes place under trees. In the *Liber de gentili et de tribus sapientibus*<sup>135</sup> a 'wise Saracen', a 'wise Jew', and a 'wise Christian' converse near a stream by which stand five trees covered with leaves, fruit, and flowers. On the trees hang combinations of the virtues and vices (Pl. 10b).<sup>136</sup> In the *Liber de quinque sapientibus*,<sup>137</sup> the conversation with the 'wise Saracen' also takes place by a fountain under a beautiful tree. I would suggest that these trees are related to those under which Felix talked with the philosopher, the hermit talked with the squire, to the trees of the *Arbor scientiae*, of the Tree of Medicine, and of Lull's vision – that is to say that they represent the fundamental *exemplum* of the working of the elements, through which – as systematized in the Art – Christians should demonstrate to 'wise Saracens' and others the truths of ethics and theology.

The *naïveté* with which Lull forces his elemental theory to work 'metaphorically' in the spheres of ethics and theology may cause the reader to smile. Littré expresses amazement at the 'metaphors' in the *Liber principiorum medicinae* and his reaction might have been still stronger had he realized the fundamental connexion of these with the Art, patterned on elemental astrology. He is appalled to find Lull explaining Christ's forty days' fast in the wilderness by a detailed application to this of his theory of 'graduated medicine'. Littré finds the medical theory itself ludicrous and the metaphorical application of it still more so.

Mais à quoi n'arrivent pas l'incohérence et le vide de ces combinaisons [i.e. those of Lull's medical theory], quand . . . elles servent d'application mystique à des notions de philosophie ou de théologie! Ainsi Raimond Lulle explique le carême par la considération des quatre qualités radicales. 'Le Fils de Dieu ayant pris la nature humaine . . . si tous les degrés des quatre qualités sont dans la nature humaine, cette nature, que le Fils de Dieu a prise, convient mieux avec l'être; elle conviendrait mieux avec le non-être . . . si tous les degrés susdits n'étaient pas dans l'humanité même; et, vu que l'être et la perfection conviennent ensemble ainsi que le non-être et le défaut, on comprend que tous les quatre degrés des quatre éléments existent dans le corps humain. Par cette démonstration est révélé le secret du carême que Jésus-Christ supporta dans le désert, quand il jeûna quarante jours, pour signifier les quarante mesures des degrés, chacune des quatre complexions ayant dans le corps humain dix points produits par l'addition de quatre points, de trois, de deux et d'un; lequel jeûne nous est donné pour mortifier la superfluité des quarante points ci-dessus démontrés.<sup>138</sup>

The details of the working of this metaphor are, of course, at present unintelligible. But they will be quite intelligible when the details of Lull's medical theory are fully worked out, together with their bearing on the 'Elemental Figures' of the Art.

Littré's amazement at these extraordinary 'combinations' is understandable; nevertheless it seems to me that Lull's attempt to put moral and mystical exemplarism on what one might call a 'scientific basis' is deeply interesting. To the mystical theologian the world of nature always suggests 'exempla' of the divine truths he is contemplating. The poet, too, like the Duke in *As You Like It*, retires into the forests of nature to find there

tongues in the trees, books in the running brooks,  
Sermons in stones and good in everything.

Lull is a mystic and a poet — a thirteenth-century romantic poet who ascends through nature in his visions:

For the whole of that day . . . Blanquerna journeyed through the forest. At nightfall he came to a fair meadow, wherein was a beautiful fountain, beneath a noble tree. There did

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Blanquerna take his rest, and he slept all that night. Before dawn he began his prayers according as he was wont; and through the strangeness and solitariness of the place, and the heavens and the stars, his soul was highly exalted in the contemplation of God.<sup>139</sup>

It is the combination of the mystic and the poet with the urge to 'demonstrate' the vision with algebraical letter-combinations on geometrical figures which is so curious in Lull. He goes below the appearances of the world of nature to its underlying structure, which for him is elemental astrology, and makes that the fundamental *exemplum* through which he calculates the metaphors and so demonstrates the moral and mystical truths.

On its deepest metaphorical level, in its most secret application, the Art works out the structure of the universe in terms of the circle, the triangle, and the square. Though the Lullian geometry deals in 'similitudes' and is not genuinely mathematical, yet the long practice of Lullism through the centuries must have helped to form a habit of mind which sought for mathematical explanations, or demonstrations, of reality. As is well known, Descartes told his friend Beeckman that his new universal system of knowledge, based on analytical geometry, was to take the place of the Art of Ramon Lull.<sup>140</sup>

## THE ART AS LOGIC

There is an approach to the Art of Ramon Lull which regards it as a

logical machine which would constitute the same sort of labour-saving device in a scholastic disputation or mediaeval university as an adding machine in a modern bank or business office. By properly arranging categories and concepts, subjects and predicates in the first place, one could get the correct answer to such propositions as might be put.<sup>141</sup>

There is no doubt that this was a function which the Art promised to perform, and students of the shortened form of the Art, the *Ars brevis*, might well be led to assume that it was its primary function.

I must say here with all possible emphasis that although the present article has taken another way into the Lullian Art than the way of logic, this does not mean that the way of logic is not equally



essential for its understanding. Both lines of approach are necessary, for both unite to form the Art.

Lull himself gave several definitions of his Art in relation to logic. In the introduction to the *Ars demonstrativa* he says that the Art is both a logic and a metaphysic, yet differs from both logic and metaphysic.

Sciendum est igitur, quod haec Ars est et Logica et Metaphysica . . . sed in duobus differt ab aliis duabus, videlicet in modo considerandi suum subjectum et in modo principiorum. Metaphysica considerat res, quae sunt extra animam, prout conveniunt in ratione entis; logica etiam considerat res secundum esse, quod habent in anima. . . . Sed haec Ars tanquam suprema omnium humanarum scientiarum indifferenter respicit ens secundum istum modum et secundum, illum.<sup>142</sup>

Thus the Art is a logic but yet differs fundamentally from ordinary logic, because it combines logical processes with metaphysics.

In the *Ars magna generalis ultima* it is also stated that the Art differs from ordinary logic. Here it is said that whilst logic deals with 'second intentions', the Art deals with 'first intentions', and that therefore the latter is 'stable' whilst the former is 'unstable'. The logician cannot find out the 'true law' with logic, but the 'artista' is able to do this.<sup>143</sup>

The 'artista' is therefore not an ordinary logician, though these definitions do not altogether clear up the nature of the difference between the artist and the logician. For the definition in the *Ars magna*, one might turn to the book which Lull wrote, *De prima et secunda intentione*, in which is to be found the following passage:

Dear son, fire is hot and dry, and air is moist and hot, and water is cold and moist, and earth is dry and cold. Fire is hot through its own property, and dry through the property of earth; air is moist through its own nature, and warm through the nature of fire; water is cold through its own nature, and moist through air; earth is dry through itself, and cold through water. And therefore, son, each element . . . has a *First Intention* towards its own quality and a *Second Intention* towards that of another element. . . . Dear son, through this order of the two Intentions the elements enter into composition through generation and corruption, and they are



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*contraria et concordantia per medium*. . . . And what the elements do through First and Second Intention I counsel thee, son, to take as an example (*exemplum*), so that using Intention with the virtues against the vices, thou mayest have a First Intention towards God above all things.<sup>144</sup>

Might one deduce from this that the 'artist' whose logic is based on 'first intentions' is one whose logic is based on the fundamental *exemplum* of the elemental structure of the universe, with the 'first intention' of using this as a ladder to God?

In his *Dialectica seu logica nova*, or *Logica brevis*,<sup>145</sup> Lull gives the diagrammatic exposition of the four relations between propositions shown in Figure 1.3.

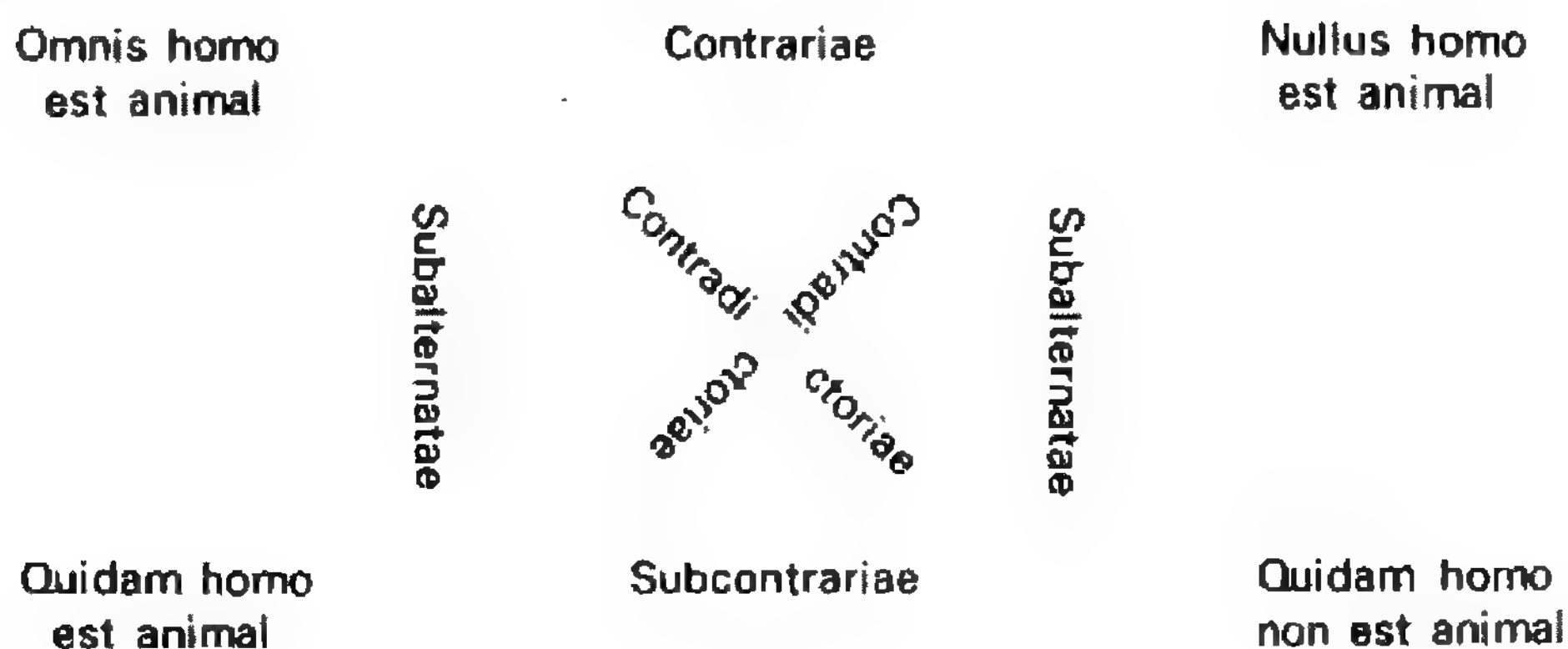


FIGURE 1.3

This diagrammatic way of representing the four relations was not invented by Lull but was traditional in logic.<sup>146</sup> The totally contradictory statements are those which are joined by the diagonals of the square. If one goes round the sides of the square one gets on two sides contrary but not contradictory propositions, and on the other two sides agreeing (or subaltern) propositions. 'Those differing in quality but not in quantity are *contraries* (if quantity universal), *subcontraries* (if quantity particular). Those differing in quantity but not in quality are subaltern.'<sup>147</sup> This diagram is sometimes called the 'Square of Opposition'.

Is it not probable that Lull may have thought that this ground-plan of logical thinking was a square, the diagonals of which join the totally contradictory propositions whilst the sides join the partially related propositions, bore a striking resemblance to his ground-plan of nature (Fig. 1.2) as the square of the Four Elements, with the diagonals as the contrasts and the sides as the concords

between the elements? To a mind like Lull's, a formal and numerical resemblance of this kind would seem a 'similitude' of supernal reality.

The 'artista', says Lull, can work much more quickly than the 'logicus', owing to the superiority of his method. But — and this is highly significant — before he starts to learn the art he must be well-grounded in *both logic and the natural sciences*:

Homo habens optimum intellectum et fundatum *in logica et in naturalibus* et diligentiam poterit istam scientiam scire duobus mensibus, uno mense pro theórica et altero mense pro practica.<sup>148</sup>

These words at the end of the *Ars magna generalis ultima* provide a confirmation of the view put forward in this article that another preparation is necessary for the approach to the Art besides the preparation of logic. If only we are sufficiently intelligent and have grounded ourselves sufficiently *in logica et in naturalibus* there is hope that we may learn to do the Art in two months.

But to ground oneself *in naturalibus* as understood by Ramon Lull takes time and is a tricky business. It was for lack of this grounding, I would suggest, that a brilliant logician and historian of logic, like Prantl, who made a very painstaking effort to understand the Lullian Art and to make it work as logic, came to the conclusion that there was no sense in it.

On the other hand, the grounding *in naturalibus* is also insufficient in itself. We must also be grounded in logic, and in logic in the relation to nature in which Lull envisaged it.

This second grounding process will not be even begun in the present article (which has only begun, without finishing, the first grounding process). There is no end of material for the approach to the Art as 'natural logic'. Probably a fundamental work is the *De naturali modo intelligendi*.<sup>149</sup> Also of primary importance is the *De nova logica*,<sup>150</sup> which is illustrated, of course, by a Tree, the 'Arbor naturalis et logicalis' (Pl. 11a). Together with these should be studied the *Metaphysica nova et compendiosa*.<sup>151</sup>

Careful study of these and other works may show how it was that the 'artista' was able to find the right answers to all questions through 'natural reason'.

Lull believed that he had an Art of Thinking patterned on the logical structure of the universe, 'through which one may know all natural things . . . valid for law, for medicine, and for all sciences,

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and for theology which I have most at heart. No other Art is of such value for resolving questions, and for destroying errors by *natural reason*.'

When the monks were ordaining how Blanquerna was to instruct them in the sciences, it was decided that 'he should teach logic, for the learning and understanding of nature'.<sup>152</sup> This perhaps suggests that the logical patterns come first and the natural patterns are made to fit on to them, rather than the other way round. At any rate it shows that 'logic' and 'nature' can be practically indistinguishable in the Lullian world of thought.

Probably of great importance for the philosophical connexion between Lull's logic and his physics would be the *Liber chaos*.<sup>153</sup> In this work, Lull discusses *igneitas*, *aqueitas*, *aeritas*, *terreitas* as 'essences' in 'chaos', and – apparently as co-existing with these elemental essences in chaos – he treats of the five predicables (*genus*, *species*, *differentia*, *proprietas*, *accidens*) and the ten predicaments (*substantia*, *quantitas*, *relatio*, *qualitas*, *actio*, *passio*, *tempus*, *locus*, *situs*, *habitus*) of logic. From this work it would again seem as though the logical classifications and the elemental essences have in Lull's mind some close philosophical relationship.

Though nothing is as yet solved in detail, we now begin to understand in a general way why it is that an Art purporting to do some kind of logic uses figures which suggest astrology. This was a 'natural logic', and 'nature' involved 'elemental astrology'.

## LULL AND THE ARABS

Lull's knowledge of Arabic, in which language he wrote some of his works, and his close contact with the Arabic world which he desired so earnestly to convert are facts which have long led scholars to seek for Arabic influences in his thought and Art.<sup>154</sup> Since I have no knowledge of Arabic it would be absurd for me to attempt to discuss this problem. I only wish to suggest with humility to Arabic experts that the nature of the problem is perhaps slightly changed, or altered in focus, by the discovery of the importance of elemental astrology in the Lullian Art and the connexion of this with the logic of the Art. Perhaps this might narrow down the search for Lull's Arabic sources into a search for 'natural logic' of this kind among the Arabs.

One of Lull's earliest literary efforts was to translate into rhymed Catalan verse the logic of Al-Ghazzālī.<sup>155</sup> As Carreras y Artau has



pointed out,<sup>156</sup> these verses already contain several cardinal points of Lull's doctrine, notably the emphasis on 'first and second intentions':

Primera entenció a Deu  
la dona, si vols esser seu;  
la segona entenció es  
si sots Deu ames quelque res. . . .

The same writer has also dwelt on the significance for the genesis of the Art of the fact that, at the end of his rhymed version of this Arabic logic, Lull assigns a letter-notation to its principles:

Per affermar e per neguar  
a.b.c. pots aiustar,  
mudant subject e predicat  
relativament comparat  
en consequent antesedent.  
Ech vos que a. es consequent,  
b. son contrari exament,  
c. es antesedent so say,  
d. per son contrari estay:  
a. es animal, home es c.  
b. ab c. en a. no's cové;  
ni a. ab d. en c., so say;  
e per aço dir eu porray  
que a. e c. son una re,  
e per contrari b. e d.,  
e tot qui es c., a. es  
convertir no ho pots per res;  
una causa son a. e b.  
contra la c., qu'axi's cové;  
axi es mul, qui es a. e b.,  
contra la c., mas greu s'enté;  
aço matex pots dir de d.,  
qui es a.b. contra la c.,  
en mul o en tot palafre  
e says que la c. e la d.  
una cosa son contra b.  
contra la a. en moltó,  
perqu'eu say que c. a. d. so  
una causa contra leó.<sup>157</sup>

This sounds as though Lull were proposing to work the 'Square of Opposition' (Figure 1.3) with an ABCD notation, and if this was his first effort at devising a letter-notation for logic it is, from our point of view, significant that it should have been an ABCD notation used on logical 'contrasts and concords'.

Al-Ghazzāli was a philosopher and theologian, as well as a logician. It would be worth while to inquire whether Al-Ghazzāli's natural philosophy contains anything at all resembling Lull's 'elemental astrology', and whether Al-Ghazzāli's logic is a 'natural logic', or could have been interpreted as such by Lull.

There is a curious passage in the *Liber de gentili et de tribus sapientibus* which might possibly help as a clue to Lull's Arabic sources. The Saracen has been describing the joys of the Moham-medan Paradise with its plenitude of food and drink and beautiful girls. He adds that there are amongst the Saracens certain heretics who interpret these joys 'morally and spiritually', saying that Mahomet spoke 'metaphorically' of these things. These heretics are 'natural philosophers' who have reached their heresy *audiendo logicam et naturas*, and it is therefore now forbidden that anyone should read publicly *naturalia et logicalia*.<sup>158</sup> This seems to suggest that Lull knew of a Saracen sect well-versed in *logica et in naturalibus* the members of which were also mystical theologians well-versed in drawing moral and spiritual analogies from material things. Which might bring one rather close to the methods of the Art, as we have tried to understand them.

Another line to pursue towards the Arabic sources — since we now realize that medicine could be done by the Art and also the great importance of metaphor from plants and medicine in Lull's exemplarism — would be the origins of Lull's medicine. He quotes from Avicenna on 'elemental grading' in the *Liber principiorum medicinae*.<sup>159</sup> Was the use of detailed and precise theories of astro-logical medicine and its 'grading' of the elements as metaphors of moral and spiritual matters habitual in the Arabic world?

Pending expert answers to these questions, it would seem a likely hypothesis that Lull did not invent either elemental astrology,<sup>160</sup> or its use with logic, or his 'metaphorical' applications of elemental processes, or, perhaps, the use of 'algebraical' and 'geometrical' notations and figures. He perhaps learned these methods from the 'wise Saracens' themselves, and was applying a good missionary technique in attempting to convert them with arguments which they would understand.

LULL AND THE AUGUSTINIAN TRADITION

Whether, or not, influenced by the Arabs in his methods, the articles of Lull's faith were those of Christian orthodoxy. Much admirable work has been done on Lull in relation to the Christian tradition of Augustinian theology<sup>161</sup> and I would not touch on this subject were it not that – as in the case of the Arabic influence – the investigations begun in this article may slightly alter the focus of the inquiry.

The endeavour to resume in a few short paragraphs a vast and complicated subject must result in only the most superficial and generalized statements. But it may be said that it is generally accepted that Lull's allegiance in Christian philosophy was to the Augustinian tradition, particularly as developed by St Anselm. The most notable representative of this tradition in the thirteenth century was the great Franciscan theologian and mystic St Bonaventura. This tradition carried on what I venture to call the Augustinian exemplarist geometry of the Trinity, the main source of which is St Augustine's *De Trinitate* (also of course used by the great thirteenth-century Dominican scholastics, though in a different way) in which Augustine discusses man as the image of the Trinity, finding that image particularly in the three powers of the soul which are *intellectus*, *memoria*, *voluntas*.

This three-fold division of the soul as an image of the Trinity is one of the most deeply held and constantly recurring of Lull's convictions. In fact, the Art was planned as an image of it. For the Art in its full development was to have three sides; a side on which it worked through *intellectus*, and that is the only side of it discussed in the present article; a side through which it trained *voluntas*, and to that the mystical works relate; and a side through which it trained *memoria* and became a kind of memory system.<sup>162</sup>

In this Augustinian tradition, the approach to God not only through the Book of the Scriptures but also through the Book of Nature – through God as revealed in his creation and in all his manifold and multiform creatures – was very highly developed. This is particularly true of St Bonaventura, hence the expression which speaks of the famous 'Bonaventuran exemplarism'.

In his *Itinerarium mentis ad Deum*,<sup>163</sup> St Bonaventura follows the rise of the mind to God through the 'vestiges' of the divine in creation. Through seeking God in visible things we are led to his 'potentia, sapientia, et bonitas', and the work leads up through



grades of ascension to the chapter *De speculatione beatissimae Trinitatis in ejus nomine quod est bonum*.

This saint was so deeply imbued with the presence of the divine throughout creation and permeating the thoughts and works of man that he wished to have all the sciences brought under the direct leadership of theology. In his *De reductione artium ad theologiam*<sup>164</sup> he defines the six lights of this life as the light of Holy Scripture, of sensitive cognition, of the mechanical arts, of rational, natural, and moral philosophy. These should all be brought together under the illumination of glory.

In his book on St Bonaventura, Etienne Gilson has pointed out that it was in this unified world of Augustinian thought that Roger Bacon put forward a universal system of human knowledge and Ramon Lull conceived the project of a universally valid Art:

Au moment où saint Bonaventure affirme l'unité parfaite de la Sapience chrétienne, Roger Bacon pose les fondements et définit la méthode d'un système unique du savoir humain; bientôt Raymond Lulle, dont la pensée franciscaine est profondément imprégnée de celle de saint Bonaventure, va concevoir le projet d'une *Combinatoire* dont l'idée n'a de sens que dans un système des connaissances et du monde aussi complètement unifié que celui des augustiniens du XIIIe siècle.<sup>165</sup>

This was said before it was realized how fundamental a part is played in the Lullian Art by the elemental theory, and its use as the basic *exemplum*. And it is here that I would suggest a new direction for the inquiry into Lull's Christian background, namely that it should be investigated whether there is anything corresponding to Lull's elemental theory in the writings of St Bonaventura.

St Bonaventura is deeply interested in the elements in their dependence on the heaven, and he regards this dependence as the working of the divine wisdom in nature:

Conditor mundi corpora coelestia incorruptibilia posuit ad regulandum et regendum corruptibilia.<sup>166</sup>

He discusses primary, or 'proper', qualities in the elements and the relation of these to the celestial influences:

Ratio . . . quare superiora in haec inferiora agunt et imprimunt et rerum qualitates intendunt, est, quia sunt corpora nobiliora et praecellentia in virtute, sicut praecellunt in situ; et ideo, cum ordo universitatis sit, ut potentiora et superiora influant in inferiora et minus potentia, ordini universitatis competit, ut luminaria coelestia influant in elementa et corpora elementaria . . . cum elementa et ex elementis commixta sint secundum primas qualitates alterantia et alterabilia, recte disposuit divina Sapientia corpora coelestia, utpote luminaria, quae inferiora alterarent sua influentia secundum qualitates primas.<sup>167</sup>

That what is meant by 'primary qualities' here is what Lull calls 'proper qualities' is clear from the note to this passage in the Quaracchi edition which states that several manuscripts have 'qualitates proprias' instead of 'qualitates primas'.<sup>168</sup> This passage thus corresponds to Lullian theory in its insistence that it is the 'proper quality' of an element which is the operative quality. And moreover, since it is the 'proper quality' which is here stated to be the vehicle for the influence of the 'nobler' and 'higher' and 'incorruptible' celestial bodies, it might almost be said that there is here in germ an indication of, or a justification for, Lull's use of the 'devictio' process — in which the victory comes through the proper qualities — as a moral *exemplum*.<sup>169</sup>

These passages occur in the Commentary on the Sentences of Peter Lombard which contains a very great deal of material on the heaven and the elements. In the *Breviloquium*, St Bonaventura sums up his astrological-physical theory, in a very decided manner,<sup>170</sup> and explains that the reason why God says nothing openly in the Scriptures about the motions and virtues of the superior bodies or about the mixtures of the elements is because, in the Scriptures, God is concerned to reveal his work of redemption, but not his work of creation, which can be read in the book of nature, or of the 'creatures'.<sup>171</sup> This would seem to suggest that the true reading of the 'Book of the Creatures' would be to find in it the workings of the *corpora inferiora*, or the elements, in their dependence on the *corpora coelestia*, as ordained by the wisdom of the *Conditor Mundi*.

Other very important works of St Bonaventura from the point of view of this inquiry are his Commentary on the Book of Wisdom<sup>172</sup> and his *In hexaëmeron*.<sup>173</sup> Gilson has gathered from these and other works St Bonaventura's view of Solomon as the master of all sciences, knowing the truth in ethics and law, in metaphysics, in

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mathematics, and in physics 'puisque'il connut les propriétés des éléments'.<sup>174</sup>

The wisdom of Lull was popularly associated with the wisdom of Solomon:

Tres sabios hubo en el mundo  
Adán, Salomon y Raymundo.<sup>175</sup>

So runs an old Spanish tag. Perhaps the Franciscans who eagerly adopted the Lullian Art saw in it the wisdom of Solomon about the elements, and the realization of St Bonaventura's dream of the regulation of all the sciences under the theology of the Trinity through an Art which knew how to work the fundamental *exemplum* from the Book of the Creatures.

St Bonaventura held that the principal sciences were medicine, law, astrology, and theology, and that they were in need of reform. Doctors had to reason about the properties of bodies of which some were natural, others accidental: the natural properties were small in number and stable, but the others were innumerable and changing. Jurists gave wrong judgments because they did not base themselves on truth and law, which are absolute and stable terms, but on love of gain in the fleeting world. Astrologers, too, were constantly deceived, because their judgments were intermediary between the permanence of the movements of the heavenly bodies, which would be an excellent object for science, and the mutability of events in the sublunar world. Theologians, too, were not free from error, for although their object was the divine and the eternal, they had to take the temporal into account in prescribing for man. In short, all the sciences are vain and unstable unless taken in their relation to God and viewed in the light of divine illumination.<sup>176</sup>

Medicine, law, astrology, and theology were the sciences which Lull also thought the most important, and he offered new and more precise methods of doing medicine, law, and astrology. And these methods were based on, or fundamentally related to, the divine principles of *bonitas*, *magnitudo*, *eternitas*, *potestas*, *sapientia*, *voluntas*, *virtus*, *veritas*, *gloria*, in an Art the 'first intention' of which was towards God, and so had a 'stability' lacking in ordinary logic. And this Art had been revealed by divine illumination to Lull, the 'Doctor Illuminatus'. It may be suggested that the Franciscans had some reason to suppose that the Art of Ramon Lull was in conformity with the ideals of St Bonaventura.

All this should be regarded as an hypothesis for future con-



firmation or disproof, rather than as in any sense a final statement. But the material from which to prove or disprove it exists, in the huge mass of the works of St Bonaventura and of Ramon Lull.

Gilson has said of the logic of St Bonaventura that it appears at first sight to be Aristotelian logic. 'Et cependant il est impossible de pratiquer longtemps les oeuvres de ce philosophe sans apercevoir que la logique aristotélicienne est plutôt pour lui un procédé d'exposition qu'une méthode d'invention.'<sup>177</sup> He points out that Aristotelian logic is not the right instrument with which to explore 'les dessous d'un monde symbolique comme celui de la tradition augustinienne', and that therefore although the syllogism is not excluded from such a tradition, its true logic consists in 'le raisonnement par analogie de proportion'.<sup>178</sup>

It may be suggested that the Lullian logic may have something of the quality which Gilson is here analysing. Whilst appearing on the surface to be Aristotelian logic, it may, in reality, be something else, a method of exposition rather than of inquiry, or a diagram of proportions having analogies with other proportions, such as, for example, the analogy between the 'Square of the Elements' and the 'Square of Opposition'.

## CONCLUSION

This article has concluded nothing, for it is not an end but a beginning. The Lullian Art still looms in mystery like some huge unclimbed mountain. One might call the present effort a reconnaissance expedition searching out new routes for some future attempt on the summit. Only a beginning has been made at trying to clear the entrance to some long forgotten tracks of ascent and descent and it would be futile to speculate on the nature of the mountain as a whole until these have been further pursued. They lead into country much of which is unexplored, the mass of the unpublished works of Ramon Lull, and the mass of his published works which is almost equally unexplored from the points of view here suggested. The task of going through all this material is one of extreme difficulty, labour and complexity, needing expert knowledge in many fields, and I publish the present attempt at mapping out some of the routes in the hope of enlisting co-operation. My aim has been to re-open the problem of Ramon Lull and his Art through suggesting some fresh ways of approaching the problem. To prove these suggestions either right or wrong will involve stirring up,



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sifting, and bringing to light the Lullian material, and that is bound to be an instructive and illuminating process.

Lullism is no unimportant side-issue in the history of Western civilization. Its influence over five centuries was incalculably great.<sup>179</sup> Lull was much in Italy and manuscripts of his works were early disseminated there and may have been known to Dante. Whether the Lullian geometry influenced Italian architectural theory is, I believe, a question which has never been asked. The Renaissance seized on Lullism with intense enthusiasm; in fact, it is perhaps hardly an exaggeration to say that Lullism is one of the major forces in the Renaissance. Pico della Mirandola acknowledged that his system owed much to the *Ars combinatoria* of Raymundus.<sup>180</sup> Nicolas of Cusa collected and himself copied Lull manuscripts. Giordano Bruno and Agrippa of Nettesheim were both Lullists. So was John Dee, one of the most influential figures in the thought of Elizabethan England. The Lullian medical theories were known to Paracelsus. In Paris, one of the first homes of Lullism in the fourteenth century, it was intensively revived in the sixteenth century when, through the influence of Lefèvre d'Etaples, a chair of Lullism was established at the Sorbonne.<sup>181</sup> Lullism continued to be enthusiastically cultivated in Paris throughout the seventeenth century, and the system was certainly known to Descartes who acknowledged that it was present in his mind when he conceived his new method of constituting a universal science. There was a large-scale revival of Lullism in eighteenth-century Germany, the end-product of which was the system of Leibniz. And all this while the 'pseudo-Lullian' alchemical tradition pursued its mysterious course.

During the centuries of the living influence of Lullism, the Lullists knew far more than we have known of the ways into the working of the Lullian Art, for they used the manuscripts. Surely it is time that we also should use them and try to learn more of the true nature of this great monument which towered for so long over the European scene — the Art of Ramon Lull.

## APPENDIX I

I give here a 'short list' of what seem to me to be the most significant of the works of Lull for further study on the line of approach indicated in this article.

C. Ottaviano in the introduction to his edition of *L'Ars compendiosa de R. Lulle*, Paris, 1930, gives a list of 231 works by Lull. With each work

he prints references for the manuscripts of it, printed editions of it (with dates) if such exist, and its number in the previous bibliographies of Littré (*Histoire littéraire de la France*, vol. 29) and Longpré (article 'Lull' in *Dictionnaire de théologie catholique*). Ottaviano's information about the manuscripts is not complete, nor always accurate, but I have found his bibliography a useful guide to the material. After each of the works of Lull mentioned in these appendices, I give in brackets its number in Ottaviano's bibliography.

Fundamental for the printed editions is E. Rogent and E. Duràn, *Bibliografía de les impressions lullianes*, Barcelona, 1927. Other important bibliographies of Lull's works are P. Glorieux, *Répertoire des maîtres en théologie de Paris au XIIIe siècle*, Paris, 1933, II, pp. 146 ff. (this has some manuscript references not given by Ottaviano); J. Avinyó, *Les obres autèntiques del beat Ramon Llull*, Barcelona, 1935.

A useful short bibliography of modern editions and of books and articles on Lull has been provided by M. Batllori, *Introducción bibliográfica a los estudios lulianos*, Escuela lulística de Mallorca, 1945.

- 1 *Tractatus novus de astronomia* (Ott. 65). Unpublished. This needs to be much more fully studied than was possible in the present article, and to be re-studied in connexion with the following works.
- 2 *Liber de regionibus sanitatis et infirmitatis* (Ott. 93). Published only in *Opera medica*, Mallorca, 1752 (Rogent-Durán, No. 363), a volume which is so rare — there is no copy in the British Museum, the Bibliothèque Nationale, nor in the Vatican Library — that it is easier to consult the otherwise *inédit* works which it contains in manuscripts. There is a manuscript of this one in the Bodleian (Digby 85) which is not mentioned by Ottaviano and was used by Thorndike, *History of Magic*, II, p. 871.

This work connects very closely with the *Tractatus de astronomia*, and uses an extended form of the ABCD notation (ABCDEFGH).

A fine example of the revolving figure, based on the calendar, which is needed for this work, is given in B. de Lavinheta, *Practica compendiosa artis Raymundi Lull*, 1523, p. cl. The figure is also given by Bruno in his *Medicina Lulliana* (*Op. lat.*, III, p. 577).

- 3 *Ars compendiosa medicinae* (Ott. 35). Published only in the *Opera medica* of 1752. It gives an important exposition of the 'circulariter, quadrangulariter, et triangulariter' theory of the elements.
- 4 *Liber de levitate et ponderositate elementorum* (Ott. 56). Written 'at the request of the doctors of Naples.' Published only in the *Opera medica* of 1752. Fundamental for Lull's system of elemental 'grading', the understanding of which is necessary for the working of the 'Elemental Figures' of the Art.

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- 5 *Liber de lumine* (Ott. 92). Published only in the *Opera medica* of 1752. It contains astrological material on the elements, connects with the medical works, and is fundamental for the outlook on which the 'Doctor Illuminatus' based his Art.
- 6 *Liber principiorum medicinae* (Ott. 11). Published in vol. I of the Mainz edition, see above, p. 26 and Pl. 2.

The study of this essential work must be led up to by the study of numbers 1 to 5 above. Salzinger says in his note (at the end of *Lib. princ. med.* in Mainz ed., vol. I) that the work is not intelligible without the *Tractatus de astronomia*, the *Liber de regionibus sanitatis et infirmitatis*, and the *Ars compendiosa medicinae*.

It is extremely important for its exposition of the 'metaphorical' application of the principles of the kind of astrological medicine which it expounds, to ethics, philosophy, and theology (see above, pp. 26, 53). It connects with the *Liber principiorum theologiae*, the *Liber principiorum philosophiae*, and the *Liber principiorum juris*, which are printed with it in vol. I of the Mainz edition. (Salzinger was the last arranger of the works of Lull who knew how to group them in accordance with their inner coherence, but he was evidently much hampered in his plans for publication.)

- 7 *Tractatus de nova geometria* (Ott. 75). Recently published from a manuscript at Palma, with an introduction, by J. M. Millás Vallicrosa, *El Libro de la 'Nova geometria' de Ramon Lull*, Barcelona, 1953 (see above, pp. 49–50).

The 'new geometry' connects with the *Tractatus de astronomia* and with Lull's medical works.

It includes brief applications of its principles to the 'figures' of camps, towers, churches, palaces, and rooms. The paragraph on churches is illustrated by sketches of churches in manuscripts which I have seen (Ambrosiana, N. 260, Sup., f. 25<sup>r</sup> and Vatican, Ottoboniano, 1278, f. 115<sup>r</sup>).

- 8 *Liber de quadratura et triangulatura circuli* (Ott. 71).

The first part of this work was published by J. E. Hofmann, *Die Quellen der Cusanischen Mathematik I: Ramon Lulls Kreisquadratur* in *Sitzungsberichte der Heidelberger Akademie der Wissenschaften, Philosophisch-historische Klasse*, Heidelberg, 1942.

It is essential to study also the unpublished second part which is introduced by the words 'investigabimus principia theologiae, philosophiae, iuris et medicinae et aliquarum scientiarum, quarum principia iam sunt inventa ab ipsis' (quoted by Hofmann, pp. 22–3). This shows that the geometry of the squaring of the circle relates to the Art by which Lull investigated these sciences.

This work was in the possession of Nicolas of Cusa (see M. Honecker, *Lullus-Handschriften aus dem Besitz des Kardinals Nikolaus*



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- von Cues, pp. 252–309 in *Gesammelte Aufsätze zur Kulturgeschichte Spaniens*, VI, ed. M. Honecker, G. Schreiber, H. Finke, Münster, 1937). Nicolas of Cusa possessed a good many other works by Lull and was no doubt fully able to place his 'squaring of the circle' in the context of his outlook as a whole, and of his Art.
- 9 *Liber de affatu, hoc est de sexto sensu* (Ott. 52). Unpublished (this work is not published in vol. V of the Mainz edition, as usually stated, but only referred to on p. 325). In connexion with the sense of sight, this work shows the Lullian geometry in relation to optics and perspective.
- 10 *De naturali modo intelligendi* (Ott. 139). Unpublished. This work discusses 'geometrical' and 'arithmetical' ways of understanding, and – together with the works on geometry – is fundamental for the Art.

After going through these works (it is essential to begin with the *Tractatus de astronomia*) the student will be grounded in the geometry of elemental astrology and will be ready to turn to the Arts, particularly to the expositions of the 'Elemental Figures' of the *Ars demonstrativa* in vols III and IV of the Mainz edition.

But a strong word of warning is necessary about the use of texts as printed in the Mainz edition. These should always be compared with the manuscripts to make sure that vital portions of the argument have not been omitted. For example, the *Liber de demonstratione per aequiparantiam* (Ott. 105), which was one of the most famous of Lull's 'demonstrations' of the Trinity, contains in the text of it printed in vol. IV of the Mainz edition no mention of the elements or of elemental theory. I have however seen a manuscript of this work (Vat. Ottob. lat. 1405, fol. 98 ff.) which contains (on fol. 100 *verso*) the first Elemental Figure (see Pl. 3c) in colours.

## APPENDIX II

Having recently examined a fairly large number of codices containing Lull manuscripts in Rome, Milan and Paris, I have formed the impression that the order and arrangement of the works in the manuscript collections brought together by people who understood the inner workings of Lullism may be a matter worth studying. As an example, I give here the context in which the *Tractatus de astronomia* appears in some manuscript collections in which I have seen it.

Vatican, Ottoboniano lat. 1278 (*Spanish, fifteenth century*)

This codex has a richness of content which seems to have escaped the

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notice of the bibliographers. Ottaviano (No. 178) refers to it as containing a copy of the *De ente absoluto*, but, in addition to that work, it includes fifteen other treatises amongst which are good and hitherto unnoticed copies of the *Tractatus de astronomia*, the *De nova geometria*, and the *De quadratura et triangulatura circuli*.

The student of this imposing volume would begin with the *Tractatus de astronomia* and end with the *De levitate et ponderositate elementorum*, the *Nova geometria* and the *De quadratura et triangulatura circuli*. Within that framework he would have studied a defence of the 'reality' of the Art (No. 4) and a number of theological works, including one of the most important of the demonstrations of the Trinity (No. 6).

- (1) f. 1<sup>r</sup>. *Tractatus de astronomia*. Complete copy. No figure.
- (2) f. 44<sup>r</sup>. *Liber de aequalitate potentiarum animae in beatitudine* (Ott. 102).
- (3) f. 45<sup>v</sup>. *Liber de investigatione vestigiorum productionis divinarum personarum* (Ott. 102).
- (4) f. 48<sup>r</sup>. *Liber de experientia realitatis ipsius Artis Generalis* (Ott. 121).
- (5) f. 59<sup>v</sup>. *Excusatio Raymundi* (Avinyó, 131).
- (6) f. 67<sup>r</sup>. *Liber de demonstratione per aequiparantiam* (Ott. 105).
- (7) f. 70<sup>r</sup>. *Liber de ente absoluto* (Ott. 178).
- (8) f. 71<sup>v</sup>. *Liber de convenientia fidei et intellectus* (Ott. 125).
- (9) f. 74<sup>v</sup>. *Liber de venatione Trinitatis per substantiam et accidentem* (Ott. 177).
- (10) f. 77<sup>v</sup>. *Liber de praedestinatione et praescientia* (Ott. 137).
- (11) and (12) f. 80<sup>v</sup> to 92<sup>v</sup>. Two short works which I have not been able to identify.
- (13) f. 95<sup>v</sup>. *Liber de levitate et ponderositate elementorum* (see Appendix I).
- (14) f. 103<sup>v</sup>. *Liber de affatu vel de sexto sensu* (see Appendix I).
- (15) f. 107<sup>r</sup>. *Nova et compendiosa geometria* (see Appendix I).
- (16) f. 126<sup>r</sup>. *Liber de quadratura et triangulatura circuli* (see Appendix I).

*Rome, Collegio di San Isidro, 1/108 (Italian, 1603)*

- 1 f. 1. *Tractatus de astronomia*. Complete copy with revolving figure.
- 2 f. 45. *Ars de confessio* (Ott. 169).
- 3 f. 48. *Ars juris* (Ott. 222).
- 4 f. 83. *Liber principiorum medicinae* (see Appendix I).
- 5 f. 110. *Ars compendiosa medicinae* (see Appendix I).

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6 f. 123. Liber de levitate et ponderositate elementorum (see Appendix I).

This predominantly medical volume, containing three of Lull's medical works, opens with the *Tractatus de astronomia*, thus immediately giving the correct context of the Lullian medicine. The inclusion of the *Ars juris* is also not fortuitous since, as we know, in Lull's theory the arts of law and of medicine are closely related (see above, pp. 22-5).

At the end of the volume is a very fine set of coloured diagrams, including one in colours of the 'Tree' of the *Liber principiorum medicinae*. (On the importance of colour in the Lullian diagrams see above, p. 29.)

Milan, Ambrosiana, N. 184 Sup. (Spanish, 1567)

- 1 f. 1. Tractatus de astronomia. Incomplete copy. No figure.
- 2 f. 37<sup>v</sup>. De figura elementalī (Ott. 27).
- 3 f. 37. Liber chaos (Ott. 18).

Number two is an abbreviated version of the *Liber exponens figuram elementalem Artis Demonstrativae* which is printed in vol. IV of the Mainz edition. The manuscript gives one of the elemental figures (that shown in Pl. 3c).

Number three, the *Liber chaos*, is printed in vol. III of the Mainz edition, in close association with the *Ars demonstrativa*, and works relating to it.

The *Liber chaos* is probably a key-work for the relation of Lull's logic to his physics (see above, p. 59), and it is therefore illuminating to find it in this manuscript linked by the 'elemental figure' of the *Ars demonstrativa* to the *Tractatus de astronomia*.

Paris, Bibl. Nat., lat. 17827. *Varia opuscula R. Lullii*

'Ex bibliotheca fratrum minorum magni conventus Parisiensis, 1717'

- 1 f. 2. Tractatus de astronomia. Complete copy. No figure.
- 2 f. 69. Liber de lumine (see Appendix I).
- 3 f. 90. Declaratio Raymundi edita per modum dialogi contra aliquorum philosophorum (Ott. 67).
- 4 f. 158. Liber de modo naturali intelligendi (see Appendix I).
- 5 f. 179. Disputatio heremitaie et Raymundi super aliquibus dubiis quaestionibus (Ott. 68).
- 6 f. 304. Liber de experientia realitatis artis generalis (Ott. 121).
- 7 f. 342. Liber de acquisitione terrae sanctae (Ott. 123).
- 8 f. 354. Petitio Raymundi in Concilio generali ad acquirendam Terram Sanctam (Ott. 160).



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- 9 f. 357. *Petitio Raymundi pro conversione infidelium* (Ott. 54).
- 10 f. 361. *Fons Paradisi divinalis* (Ott. 48).
- 11 f. 370. *Liber de demonstratione per aequiparantiam* (Ott. 105).
- 12 f. 382. *Liber de ascensu et descensu intellectus* (Ott. 104, and see above, pp. 41–2).
- 13 f. 476. *Liber de novis fallaciis* (Ott. 120).
- 14 f. 545. *Metaphysica nova* (Ott. 135).

This volume, which was in the library of the Parisian Franciscans in the eighteenth century, was probably written in the seventeenth century.

To open a selection of Lull's works with the *Tractatus de astronomia* immediately followed by the *Liber de lumine* would be a very good approach to Lullism. The reader then goes on to study Lull's (very orthodox) views about the articles condemned by Bishop Etienne Tempier in 1277 (No. 3). Amongst other works is one on the demonstration of the Trinity (No. 11), on the Art in relation to the Sentences of Peter Lombard (No. 5), on the 'reality' of the Art (No. 6). The selection leads up to a series on crusades, missions, and Lull's schemes for colleges (Nos 7, 8, 9), and, towards the end, the mystical element is strong (Nos 10 and 12). The final work on metaphysics (No. 14) connects closely with the *Liber de ascensu et descensu intellectus* (No. 12), for it studies the nine 'subjects' of the Art (Deus, Angelus, Coelum, etc.) in order.

It is interesting to notice that of the fourteen items in this volume in which Lullism was still being studied in eighteenth-century Paris in a great Parisian library, only seven have ever been printed (Nos 2, 3, 5, 9, 11, 12, 14). And of these seven, three (Nos 2, 12, 14) are in very inaccessible editions.

The Parisian Franciscans also possessed at the same date a volume containing only the *Tractatus de astronomia*, namely Bibl. Nat., lat. 17822, 'Ex Bibliotheca fratrum minorum magni conventus Parisiensis, 1717'. This is an incomplete copy with a non-revolving figure.

*Paris, Bibl. Nat., lat. 15095, 15096, 15097, 15098, 15099.*

### *Vita et opera R. Lulli*

These five calf-bound volumes, written in a seventeenth-century hand, were formerly in the library of the Abbey of Saint Victor. Since in order to get the full context in which the *Tractatus de astronomia* appears here, it would be necessary to list the order of contents in all the volumes, I do not attempt to do this. The *Tractatus* comes in vol. V (lat. 15098), beginning at f. 79, with the heading 'De astronomia Liber Raymundi Lullii ad usum Caroli Sauvage Canonici St. Victoris Parisiensis', and is a complete copy with no figure.

It is followed (f. 223) by a work entitled *Astronomiae principia* which I

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have not seen elsewhere and which is almost certainly not by Lull.

The first volume of this collection (lat. 15095) opens with the *De modo naturali intelligendi* followed by the *De experientia realitatis artis generalis* and the *Ars compendiosa medicinae*.

*Paris, Bibliothèque Mazarine, MS. 3501 (seventeenth or eighteenth century)*

This volume, which the catalogue (A. Molinier, *Catalogue des MSS. de la Bibl. Maz.*, Paris, 1890, II, p. 111) describes as 'Copie et traduction de divers traités de Raymond Lulle', is interesting for its tendency to present Lull in French translations and also because it mingles genuine works with 'pseudo-Lullian' alchemical works.

- 1 'Pii heremitaie phantasticus.' That is, the *Disputatio Raymundi phantastici et clerici* (Ott. 158). Copy of the edition of Paris, 1499.
- 2 'Le clerc du pieux hermite Raymond, nouvellement traduit en françois.' French translation of the preceding.
- 3 De ascensu et descensu intellectus.
- 4 Liber de correlativis (Ott. 144).
- 5 'L'art de discourir de Raymond Lulle, sur toutes sortes de subjects proposez.' Perhaps apocryphal.
- 6 Extractum ex libro, cui titulis est: *Sententia definitiva in favorem doctrinae Lullianae*, Palma, 1604, cum tractatu integro *De convenientia fidei et intellectus* (Ott. 125).
- 7 Liber de praedestinatione et praescientia (Ott. 137).
- 8 Liber de confessione. An apocryphal work (see Ott. 169).
- 9 Tractatus de lumine. (The *Liber de lumine*).
- 10 Tractatus de intentione prima et secunda (Ott. 29, and see above, p. 56).
- 11 Parabolae de quinque sapientibus (Ott. 55, and see above p. 53).
- 12 Ars medicinae (the *Ars compendiosa medicinae*).
- 13 Liber de astronomia (the *Tractatus de astronomia*, complete copy, no figure).
- 14 Lectura super figuris artis demonstrativae (Ott. 23).
- 15 De secretis naturae sive de quinta essentia. A 'pseudo-Lullian' alchemical work.
- 16 Lettre d'un philosophe à un abbé de ses amis touchant la pierre philosophale.

Numbers 3, 9, 12, 13 of this collection would prepare the student of this volume for the study of the figures of the Art (14). From the study of the genuine Lullian works he would go on to his 'pseudo-Lullian' alchemical interests.

## APPENDIX III

In addition to trying to select for study in the right order the Lullian works which throw light on the Art, there is another approach which should not be neglected, though it must be used with caution, namely 'revelations' by Lullists about the Art. I intend to suggest only two examples of these (for here also the material is vast), namely those by two men whom one might call respectively the first and the last Lullists.

*Thomas Le Myésier's 'Electorium Remundi' in Paris, B.N. lat. 15450*

Thomas Le Myésier, doctor of medicine and canon of Arras, was a personal friend and ardent disciple of Lull's (see Carreras y Artau, *Historia de la filosofía española*, II, pp. 20 ff.). It was he who caused to be made the remarkable set of miniatures illustrating the life and work of Lull which are in the manuscript at Karlsruhe (Pergamenthandschrift 92) and which have been published by W. Brambach (*Des Raimundus Lullus Leben und Werke in Bildern des XIV Jahrhunderts*, Karlsruhe, 1893) and by Jordi Rubió ('El Breviculum i les miniatures de la vida d'en Ramon Lull de la Biblioteca de Karlsruhe', in *Butlletí de la Biblioteca de Catalunya*, 1916, pp. 73-89). These miniatures show understanding of Lull's symbolism and aims; three of them have been reproduced above (Pls 6a, b, 7b).

The huge and beautifully written early fourteenth-century codex, Paris, B.N. lat. 15450 was compiled by Le Myésier. He had a large collection of Lull's works, and he laboured to present the Master's doctrine in three compilations. One was a short introduction, the *Breviculum*, which is in the Karlsruhe manuscript, prefaced by the miniatures. Another was of medium length, the *Electorium medium*. The third was the full-length *Electorium Remundi* which is in Paris, B.N. lat. 15450. One of the Karlsruhe miniatures (Pl. 11b) shows Le Myésier presenting these three different-sized works to the Queen of France (it seems undecided whether the Queen is Jeanne de Navarre, wife of Philip IV, or Jeanne d'Evreux, wife of Charles IV).

No full analysis of the complicated contents of Paris, B.N. lat. 15450 can be attempted here. It contains a life of Lull, the earliest catalogue of his works, and the *Electorium Remundi*, an exposition and commentary in which full-length copies of many of Lull's works are embedded. After the long introduction, the first works selected for copying are the *De modo naturali intelligendi* and the *De ascensu et descensu intellectus*.

The introductory pages would form the best possible guide to what Lullism was like at its inception. They begin with a long description and explanation of a wonderful diagram (Pl. 12). This shows the angelic sphere in rich gold-leaf, and upon it revolve the spheres of the primum



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mobile, the empyrean, the crystalline, then the sphere of fixed stars, and the seven spheres of the planets. At the centre of this universe is the earth, on which is a tree, an animal, and a man, surrounded by the spheres of the other three elements. The eleven super-celestial and celestial spheres, and the four spheres of the elements are drawn on transparent material, so that the gold of the angelic sphere on which they are placed shines through.

This circle of the universe is divided into nine segments, and in the segments are written the two meanings which BCDEFGHIK have, as 'absoluta' and as 'relata', in the Art. Some of the meanings change in different spheres in careful accordance with Lull's teaching. 'Contrarietas' only comes into existence when the principles enter the elemental spheres. 'Sapientia' and 'Voluntas' are 'Instinctus' and 'Appetitus' in the heaven (see above, p. 22). Nothing could show more clearly than this diagram that the Lullian Art has a cosmological basis. The accompanying text (f. 91) states that this figure disposes a man 'ad intelligendum ardua et subtilitates . . . artis Remundi', that it is like an 'alphabetum primum' or an 'instrumentum visibile' through which to make the approach to the Art. Why not accept the help which Le Myésier offers, and read what he has to say in the clear and beautiful script of Paris, B.N. lat. 15450?

Le Myésier also wrote an introduction to Lull's *Liber de gentili et tribus de sapientibus* which, I believe, has not been noticed. It is in Vatican, Vat. lat. 9344, f. 191<sup>v</sup> to 203<sup>v</sup>.

### *Ivo Salzinger's 'Revelatio Secretorum Artis Raymundi Lulli'*

The revival of Lullism at Mainz in the eighteenth century, focused on the preparation of the great edition of Lull's works, was probably the last flare-up of a way of thinking which had exercised so pervasive an influence for five centuries. Salzinger's 'Revelatio', in the first volume of the edition, is the latter-day 'Electorium Remundi'. Like Le Myésier, Salzinger allows the Master himself to speak by quoting long extracts from his works in a frame-work of commentary. He builds up the revelation of the secret from the *Tractatus de astronomia*, the *Liber de lumine*, the *Liber chaos*, the geometrical works, the medical works, the *Arbor scientiae*, the *De ascensu et descensu intellectus*, and many others. He had ransacked the libraries of Europe for Lull manuscripts and the material at his disposal may have been almost as extensive as that possessed by Le Myésier in the fourteenth century.<sup>182</sup> A comparison of his revelation with that of Le Myésier would be most instructive for the course which Lullism had taken from start to finish.

Salzinger knew the works of Newton and Descartes, whom he mentions, but still preferred the methods of Lullism to those of the new

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mathematicians. His discussion of Lullism in relation to contemporary thought is worthy of attention. He was also very well versed on the history of Lullism and any hints which he drops are not to be despised.

Two volumes of the Mainz edition have on their title-pages an engraving (Pl. 13a) which shows the Pope enthroned in a vast church; light streams from the geometrical symbols on the roof and wall (compare these with those at the centre of the *Figura Universalis* of the *Ars demonstrativa*, Pl. 13b) on to the sacramental vessels on the table; and crowds of people are intently engaged on doing the Lullian Art. Probably this was the last pictorial expression of the old dream of the triumph of the faith through Lullism.

## RAMON LULL AND JOHN SCOTUS ERIGENA

IN A PREVIOUS article in this *Journal*,<sup>1</sup> I drew attention to the fact that elemental theory plays some very important part in the thought and in the Art of Ramon Lull. According to ancient physical theory, the four elements of Fire, Air, Water, Earth form, through the inter-relation of their qualities of Heat, Moisture, Coldness, and Dryness, the essential pattern underlying the physical world. I showed that in his *Tractatus de astronomia*, Lull worked out a system of 'elemental astrology', or a way of calculating the influences of the stars through their influences on the elements, using the letters ABCD to designate the elements and the elemental qualities.<sup>2</sup> In the same work he also insisted that the divine 'principles' of Bonitas, Magnitudo, Eternitas, Potestas, Sapientia, Voluntas, Virtus, Veritas, Gloria, formed the true 'proper qualities' of the elements. This immediately associates the elemental theory with Lull's Art, in the 'nine' forms of which – that is the forms based on nine principles or Dignitates Dei – he designates the Bonitas to Gloria series by the nine letters BCDEFGHIK (Pl. 14b).

The importance of elemental theory in Lull's Art is also demonstrated by the fact that in one of the earlier forms of the Art there are two elemental figures,<sup>3</sup> formed by combinations of the four elements. These elemental figures (Pl. 14c, d) are expressly stated by Lull to be of vital importance for the whole of his Art. The form of the Art in which the elemental figures occur is a sixteen form,<sup>4</sup> based on sixteen divine Dignities or principles, namely Bonitas, Magnitudo, Eternitas, Potestas, Sapientia, Voluntas, Virtus,



Veritas, Gloria, Perfectio, Justitia, Largitas, Misericordia, Humilitas, Dominium, Patientia, designated by the letters BCDEFGHIK LMNOPQR (Pl. 14a).

I also showed in my article, through comparison of the Arts with the encyclopaedias which explain them, that Lull intended his Art to work on all the levels of the ladder of being.<sup>5</sup> The Art can be applied to the 'subjects' of God, the Angels, the Heavens, Man, the animal world, the vegetable world, and the elements (see the fourth row of the *Ars brevis* alphabet, Pl. 14e). It is, in fact, a mode of 'ascending and descending' on the ladder of being by concentrating on Bonitas, and the other divine principles, as these are manifested on every level of God's creation from the highest to the lowest. This ascent and descent seems to be facilitated through the identification of the proper or true qualities of the elements with the divine principles of Bonitas and the rest.

Though my article drew attention to these facts about the Lullian Art, or Arts, it did not solve the problem of what the connection was in Lull's mind between his sets of divine principles, or Dignities of God, which form the basis of his Arts, and the elements. I put the unsolved problem in the form of the question of what is the connection between BCDEFGHIK and ABCD – that is, what is the connection between the Bonitas series and the elements?<sup>6</sup> This question applies whether we are thinking of a 'nine' form of the Art, or of a 'sixteen' form, such as the *Ars demonstrativa*, which uses sixteen principles or Dignities and includes the vital elemental figures, based on the four elements.

Another unsolved difficulty was the connection of all this with Lull's logic, for the Art purports to be a kind of logic, and this, indeed, is the side of it on which most modern students of it have concentrated. The ten questions (grouped into nine in the *Ars brevis* alphabet (Pl. 14e) to make them fit into the nine letter-series) are obviously based on the Aristotelian categories. These ten questions are to be asked of the 'subjects' with which the Art deals. The Lullian logic is, however, so Lull himself claims, different from ordinary logic, for it is based on reality and can find out truth.<sup>7</sup> By drawing attention to the formal similarity between the logical 'Square of Opposition' and the square on which the concords and contrasts between the elemental qualities is set out, I suggested that Lull may have thought of his logic as a 'natural logic', based on the elemental structure of the created world.<sup>8</sup> This suggestion was, however, more in the nature of the asking of a pertinent question than a solution of the difficulty.

In the years since I wrote that article it has seemed to me more and more evident that these essential problems will not be solved merely by concentrating on the mysterious workings of the Art. To solve them, we must know in what kind of world of thought Lull's mind was working when he invented the Art, that is to say, we must find a source.

It is clear that there is some kind of Neoplatonism behind his way of thinking; the divine principles proceed from the unspoken 'A' of the letter series. Since Lull in his lifetime had some familiarity with both Arabs and Jews, whom he hoped to convert to Christianity through his Art, three channels of Neoplatonic tradition are open to him as sources; the Arabic, the Jewish, and the Christian. We have had the Arabic period, during which great scholars<sup>9</sup> sought for his ideas among the Arabic philosophies. Apart from the certain fact of his knowledge of Al-Ghazzālī's logic, no very positive results emerged from this search. Others have looked in the Jewish tradition, pointing in particular to the sephiroth of the Cabala as parallels to the Lullian Dignitates Dei.<sup>10</sup> Another school of thought maintains that it is in the Augustinian and Christian Neoplatonic tradition of the West that Lull, the ardent Christian, would have looked for his sources.<sup>11</sup> It is pointed out that Anselm and Richard of St Victor list similar divine attributes to those chosen by Lull, and, above all, that a list very close to Lull's 'nine' can be found in Augustine himself.<sup>12</sup> It was strongly urged by Probst that the influence of the Christian Neoplatonism of Pseudo-Dionysius is to be discerned in Lull, and in this connection Probst mentioned the name of the translator of Pseudo-Dionysius, John Scotus Erigena, whose original work, the *De divisione naturae*, might, he thought, have helped to transmit the Pseudo-Dionysian mysticism to Lull.<sup>13</sup> In making this suggestion, Probst added that he had found no trace in Lull of the metaphysical system put forward by Scotus. More recently, E. W. Platzeck has emphasized the Augustinian and Pseudo-Dionysian aspects of Lull's thought and has again mentioned Scotus (at whom he arrives by a different route from Probst) only to dismiss this as an unlikely influence.<sup>14</sup>

Amongst all these possibilities one, at least, is a certainty — namely, Augustine. Though Lull varied the number of his principles, one number behind them remained stable, the Three of the Trinity, and that it was the Augustinian Trinitarianism on which he chiefly depended is shown by the prominence which he gives in the Arts to the three powers of the soul, *intellectus*, *memoria*, *voluntas*.

The probability therefore is that Lull's source was a Christian

writer, and one who made great use of Augustine and of Pseudo-Dionysius. If such a writer also builds a universal system on divine principles, in conjunction with a theory of the elements and an unusual use of the logical categories, his work might well be the source of Ramon Lull's ideas. These are exactly the characteristics of the system erected by John Scotus Erigena in his *De divisione naturae*, and it is the purpose of this article to argue that our earlier work on elemental theory in Lull has made it possible to recognize this work as his main source.

Erigena has been described as 'the loneliest figure in the history of European thought'.<sup>15</sup> He lived in a dark and difficult age, the ninth century, and the apparition of such a man in such a time is a curious and to some extent unexplained phenomenon. Scotus was an Irishman, and was educated in the Irish tradition of scholarship; whether or not it was because of this that he knew Greek, he certainly did know it.<sup>16</sup> At the request of Charles the Bald, he translated the Pseudo-Dionysian writings from Greek into Latin, and it may have been the making of this translation which inspired him to write his own great work.

In his *Periphiseon*, or *De divisione naturae*,<sup>17</sup> Scotus is using a rather unusual range of sources.<sup>18</sup> He is a Neoplatonist, but he has not read the ancient Greek Neoplatonic writers, and of Plato's own works he knows only the *Timaeus*. He has caught the spirit of Greek thinking, not from the originals, but through the Greek Fathers whom he knows very well indeed, particularly Origen, Basil, Maximus the Confessor, and Gregory of Nyssa. His knowledge of Greek physics has reached him tinged with the mysticism of Greek patristic commentary on the Mosaic account of Creation. To this very strong Greek Christian influence on Scotus, was added, when he made his great translation, that of the Syrian monk of the sixth century who was the probable author of the writings which passed under the name of Dionysius the Areopagite.

One of Scotus' aims in the *De divisione naturae* is to effect a synthesis between Augustine, whom he quotes perhaps more than any other writer,<sup>19</sup> with the Greek Fathers and with Pseudo-Dionysius. Scotus' Augustinianism thus has another Neoplatonic tradition behind it — not an Arabic tradition, nor a Jewish tradition, nor primarily the Latin Christian tradition (though he does use other Latin theologians besides Augustine), but the Greek Christian tradition, the tradition of the Eastern division of Christendom. Scotus is, indeed, a most devout Christian; he always tries to base



his statements on Scriptural and patristic authority; and he is trying to build a universal philosophy, an account of Nature, which is also a Christian philosophy.

The shape of Scotus' philosophical thought was conditioned, not only by the sources which were available to him, but also by those which were not available to him. As already said, he did not know Plato (except for the *Timaeus*) or the Platonists, whose thought reached him through the Eastern Christian tradition. And the only work of Aristotle's which he knew was the *Categories*.

Nature, according to Scotus, consists of all things which are, and of all things which are not. Of the things which are, a fourfold division is to be made:

- 1 creating and not created;
- 2 created and creating;
- 3 created and not creating;
- 4 not creating and not created.

The third division is logically opposed to the first, and the fourth to the second. (The fourfold scheme might therefore be set out on a 'square of opposition'.) A brief preliminary attempt at defining the four divisions might be the following:

- 1 *creat et non creatur*. God as the source of all.
- 2 *creatur et creat*. The primordial causes. These are Bonitas, Essentia, Vita, Sapientia, Ratio, and the like (varying lists of the causes are given, as we shall see presently). These are the primal causes of everything in the whole universe. They are 'what the Greeks call ideas'. And in their unity they are the Divine Word, the Logos, the instrument of God's creative power.
- 3 *creatur et non creat*. The created universe or all that is known in generation, space and time. This derives from the primordial causes through the elements which, in their primary or catholic and universal form, belong very closely with the primordial cause and are their instruments of creation. From these catholic and universal elements derive the elemental qualities upon whose inter-relations the whole order of creation is built from the highest to the lowest.
- 4 *nec creat nec creatur*. God as the end of all. The whole creation, as it came from the primordial causes, so it will return to them. Man is the microcosm, containing within himself the



whole creation, the point of union between what is above him and what is below him. This position constitutes the Dignity of man. When the Second Person of the Trinity redeemed man the whole creation was also redeemed in him, and so he and the whole creation may rise back to their primal dignity in the primordial causes, to their end, which is God. Hence the primordial causes, which are the Logos as creator, both descend through the whole of creation, and ascend again up through it, through the Logos as Redeemer.<sup>20</sup>

It is, I hope, already obvious that Erigena's system is of profound interest to students of Ramon Lull. In the primordial causes and their relation to the elements we at last have something which might help to explain the relation of Lull's Dignitates Dei to the elements. In the identification of the primordial causes with the creative power of the Second Person of the Trinity we have a conception which might throw light on the relation of the Lullian Dignitates to the Trinity. In the mystical doctrine of the re-ascent of all to the primordial causes whence all issued there is something which reminds us of that power of 'ascending and descending' which Lull promises to students of his Art who will concentrate on Bonitas etc. as the proper qualities of the elements. In the following pages I propose to go through very briefly the books of the *De divisione naturae*, extracting from them what may be of importance to students of Lull.

#### BOOK I. *CREAT ET NON CREATUR*. GOD AS THE SOURCE OF ALL

God is a Trinity of Father, Son and Holy Spirit, but the relations between these are unknowable, and God is best defined by negative rather than by positive statements.

A large part of the book is taken up by demonstrating in detail that the ten Aristotelian Categories of *essentia*, *quantitas*, *situs*, *locus*, *qualitas*, *relatio*, *habitus*, *tempus*, *agere*, *pati*, are inapplicable to the nature of God of whom nothing can be predicated. Conversely it is shown that these categories are applicable to sensible phenomena and also to intellectual phenomena like the Liberal Arts.

In all this discussion, Scotus seems to be thinking of the categories, not in a context of logical thinking, but rather as though they were in the nature of philosophical 'reals', belonging to the real

nature of the universe founded by God, or modes of abstracting from the phenomena the reality behind them. A critic of Scotus, noting this characteristic, has said of him that 'the fundamental idea in Erigena's doctrine is the idea that the degrees of abstraction correspond to the degrees of real existence. He hypostatizes the *Tabula logica*.'<sup>21</sup>

It may well be that a study of Scotus' use of the categories detached from their context in the rest of the Aristotelian organon (which, it will be remembered, he did not know) might throw light on Lull's use of his ten questions, based on the categories, in his Art.

## BOOK II. *CREATUR ET CREAT.* THE PRIMORDIAL CAUSES

Scotus' source for the primordial causes was certainly Pseudo-Dionysius' *De divinis nominibus*, particularly the passage where it is said that Bonitas, Essentia, Vita, Sapientia, Ratio are 'optimae processiones' from the One God.<sup>22</sup> It has been suggested that in turning these Divine Names, or optimal processions, into primordial causes, Scotus may have been influenced by Maximus the Confessor's interpretation of the passage in a 'creationist' sense.<sup>23</sup>

The lists of the primordial causes given in the *De divisione naturae* vary somewhat,<sup>24</sup> though they nearly always start with Bonitas. In one list (in Book I) they are given as Essentia, Bonitas, Virtus, Veritas, Sapientia, 'and others of the like', the last phrase suggesting that the choice can be varied at will. In another, they are Bonitas, Essentia, Vita, Sapientia, Virtus; in another, Essentia or Substantia, Bonitas, Virtus, Sapientia 'and the like'; in another, Bonitas, Essentia, Vita, Sapientia 'et omnes'. One of the longest of the lists is the following: Bonitas, Essentia, Vita, Ratio, Intelligentia, Sapientia, Virtus, Beatitudo, Veritas, Eternitas, Magnitudo, Amor, Pax, Unitas, and Perfectio. Soon after giving this list, in this order, Scotus says that the order in which the causes are contemplated does not matter, and that the pious and pure philosopher may turn them around at will whilst basing his theories upon them.<sup>25</sup>

It will be noticed that Lull's Dignitates Dei correspond most closely to Scotus' primordial causes;<sup>26</sup> that the practice of contemplating the causes in different orders which Scotus recommends, and of turning them round in the mind is what Lull does when he

sets B to K (or one of his other series) on the revolving wheels of his Art; and further that the fluidity in the choice of lists of primordial causes which we find in Scotus corresponds to what has been observed of Lull's Dignitates Dei, namely that he varies their number in different Arts.

'Primordial causes' is the name most commonly given by Scotus to the series of Divine Names, though he gives other definitions of them. They are 'what the Greeks call ideas'.<sup>27</sup> Or they are 'species vel formas aeternas et incommutabiles rationes, secundum quas, et in quibus visibilis et invisibilis mundus formatur et regitur.'<sup>28</sup> Or they are 'principalia exempla, quae Pater in Filio fecit, et per Spiritum sanctum in effectus suos dividit atque multiplicat.'<sup>29</sup> Or they can be called 'praedestinationes', because 'nihil naturaliter in creatura visibili et invisibili oritur, praeter quod in eis [i.e. in the primordial causes] ante omnia tempora et loca praedefinitum et praeordinatum est.'<sup>30</sup>

The term 'principalia exempla' used by Scotus of the primordial causes is close to the term 'principia' which is the one most commonly used by Lull of his series. I have not found that Scotus uses the term 'Dignitates Dei' of the series as causes. He uses Dignitas of man and his significant position in the universe (in this he was following Maximus the Confessor and Gregory of Nyssa) but since the end of man, and with him of the whole creation, is to return to the primordial causes whence they came, and thereby to recover the primal 'dignity', it is possible that the causes may be thought of as Dignitates when they are the End in God rather than the Beginning in God.<sup>31</sup>

The most significant and the basic description of the primordial causes given by Scotus is that, as a unity, they constitute the Logos, the creative Word of God. 'In the beginning was the Word, and the Word was with God and the Word was God. The same was in the beginning with God. All things were made by him and without him was not anything made that was made.' For Scotus, a list of Divine Names means simply this. This is his basic text for his conflation of the Platonic ideas with Christian doctrine.<sup>32</sup> The fundamental thought of the unity of the causes in the Word is elaborated and re-stated again and again throughout the *De divisione naturae*.<sup>33</sup> The primordial causes are one in the Word, though infinitely multiplex in their effects, as infinite number is one in the monas.<sup>34</sup>

The primordial causes create throughout the whole realm of nature. They are, indeed, the only reality in nature. All goodness is



good through its participation in the primordial Bonitas. The same is true of all Essence, all Intelligence, all Reason, and so on. In reading the many repetitive passages in which Scotus insists on this thought<sup>35</sup> one feels oneself very close to Ramon Lull whose whole Art consists in concentrating on the Bonitas, Magnitudo, Sapientia, and the like, in every subject with which it deals.

The primordial causes were created from all eternity by God in the Word, and there is no other creature between them and the Trinity.<sup>36</sup> They may therefore be said to participate in the Trinity, through the Word. Here, surely, we have the root idea through which Lull's Art leads up to the Trinity through the Dignitates Dei, and down from the Trinity, through the Dignitates Dei, into every 'subject'.

BOOK III. *CREATUR ET NON CREAT.*  
THE ELEMENTS, AND THROUGH THEM ALL THAT IS  
GENERATED IN TIME AND PLACE

From the primordial causes there proceeds (and this is as it were the first effect of their creative power) an inform matter, which is the beginning of the essences of things. This is that matter of which the Scriptures speak (alluding, of course, to the 'without form and void' of first verse of *Genesis*). It is without form because near to the informity of the divine wisdom.<sup>37</sup> This inform matter is the same as that 'which the Greeks call *hyle*' (alluding to the *Timaeus*).<sup>38</sup> The primordial causes are eternal, but this inform matter through which they work their effects is not eternal.<sup>39</sup> The immediate effects of the primordial causes are the four elements of Fire, Air, Water, Earth, not however, in any corporeal form, or as the four elemental qualities, but as the 'universal elements', or what the Greeks call catholic elements.<sup>40</sup> These four elements when existing *per se* in their simple, pure, catholic and universal state, are universally diffused in a mysterious and incomprehensible way; they are in all bodies, whether celestial, aerial, aquatic, or terrestrial.<sup>41</sup> The primordial causes 'descend' into these catholic and universal elements;<sup>42</sup> the fundamental difference between the causes and the catholic elements is that the latter are subject to place and time, whereas the former are not.<sup>43</sup> The catholic elements are what is called the firmament in the Book of Genesis; they separate the waters above the firmament, which are the primordial causes, from the waters below the firmament, which are the elementary qualities.<sup>44</sup>



The catholic elements are thus as it were a medium between the primordial causes, which progress or flow into them, and the creation formed of the elemental qualities.<sup>45</sup> Since only the primordial causes create, and the catholic elements belong into the created and *not* creating division of nature, it follows that the creative power of the primordial causes works in and through the catholic elements, and thence through the elemental qualities.

The Third Person of the Trinity brings about the effects of the primordial causes. 'And the Spirit of God moved upon the face of the waters,' that is, the Holy Spirit brought about the production of the elements out of the primordial causes.<sup>46</sup>

From the derived elemental qualities of *calidus*, *frigidus*, *humidus*, and *siccus*, the whole creation is formed, and it is with a kind of religious ecstasy that Scotus contemplates the infinitely complex relations between the qualities, and the 'sinuosities' of the elemental dance.<sup>47</sup> His delight in divinely created abstract patterns reminds one of the interweaves and elaborate sinuosities which decorate the Irish High Crosses or the Book of Kells.<sup>48</sup>

Do we not now begin to see the connection between the Dignitates Dei and the elements, the connection between BCDEFGHIK and ABCD, in the Art of Ramon Lull? Is it not obvious that Lullian Dignitates must be the Scotist Names of God as primordial causes and working in all things through the elements? I have not found in Scotus Lull's formulation of Bonitas, and the rest, as actually the true 'proper qualities' of the elements, though this may be implied in some passages.<sup>49</sup> But the conception through which the Art works as a mode of 'ascending and descending' by equating the proper qualities of the elements with the divine principles might clearly have been deduced from the Scotist scheme.

The catholic elements enter into the categories of place and time, and the elemental qualities, and all derived from them, fall under both these and all the other categories. The categories seem to be here, in Scotus' mind, in the nature of a divine creation emanating from the primordial causes, or an instrument of their creative power in forming the inform chaos, rather than instruments of human reason. After speaking of the 'progression' of the causes into the inform matter, he says that the divine Bonitas is in all *genus*, *species*, *qualitas*, *quantitas*, *copula*, *situs*, *habitus*, *locus*, *tempus*, *actio*, and *passio*.<sup>50</sup> It is almost as though the categories were physical entities issuing, like the elements, out of the primordial causes, or existing, with the elements, in the inform matter. Understood in this way,

the ten questions of the Lullian Art, based on the categories, might have, like the elements, a relation to the Dignitates. But to this we shall return later when considering Lull's *Liber chaos*.

BOOKS IV AND V. *NEC CREAT NEC CREATUR*.  
GOD AS THE END OF ALL

It is not until towards the end of the very long and difficult argument of these two books that we begin to understand how it is that God as the End can be described as 'neither created nor creating'.

The Word, by His divinity, is the cause of the causes; by His humanity He descended into the effects of the causes.<sup>51</sup> Christ in His humanity is therefore neither created nor creating. He is redeeming His own creation, and enabling it to return to its End in the primordial causes, namely in Himself. Man is the microcosm, containing in his double nature all creatures both intellectual and intelligible and corporeal. Christ by taking on human nature and redeeming it therefore enabled both man and the whole creation to return to its End in Bonitas and the primordial causes which are Himself. Christ as the End is therefore neither created, for He is divine, nor creating, for He is redeeming what He has already created. So the Word is both the principium and the finis of all, the alpha and the omega, the Beginning and the End.

The working out of this argument requires in the first place the demonstration that man as the microcosm contains the all, and this is, in the main, the theme of Book IV, though there are many digressions.

It is agreed amongst the wise, says Scotus (and the 'sapientes' whom he has consulted are the Greek theologians, particularly Gregory of Nyssa and Maximus the Confessor), that in man is contained the whole universe of creatures.<sup>52</sup> He understands and reasons like an angel; he feels and has a body like an animal. He thus holds the middle position between the higher and lower orders of creation which he unites in his double nature of soul and body. This significant position constitutes the 'dignity' of man which makes him, not only superior to the animals, but even superior to the angels because more inclusive.

Videtur enim non solum angelica essentia, verum etiam  
sensibilium rerum quadam dignitate, ut non dicam tempor-

alitate, humanam praecedere substitutionem. Quinimodo in hoc maxime humanae essentiae super omnia, quae sunt, manifestissime *dignitas* aperitur.<sup>53</sup>

Here we have Scotus enunciating in the ninth century, following his Greek masters, what used to be thought to be the peculiarly 'Renaissance' theme of the Dignity of Man.

This Dignity is man's true birthright, which would have been his had he not sinned. But the Creator, leaving the Dignity of His own nature, came down into man's nature.<sup>54</sup> Hence man, originally made in the image of God, may rise back again to his pristine dignity, and with him the whole creation, and this is the New Heaven and the New Earth.<sup>55</sup>

The Word is the Principium and the Finis, but man is in the Middle; he represents the effects of the Causes, and by taking on his nature the Causes bring back the Medium to the Principium which is its Finis.<sup>56</sup>

All students of the Art of Ramon Lull will remember that one of its basic figures is the triangle of the *relata* of Principium, Medium, and Finis. And the fact that Lull uses the term 'Dignitates Dei' for his Bonitas, and so on, series might well mean, as was suggested earlier, that by this expression he is thinking of them as the End, the restoration of all to the pristine Dignity, as well as the Beginning.

The 'ascent and descent' of the Art, through Bonitas, and the rest, on every level of creation would thus reflect that 'exitus et reditus', that expansion of the One into the All, and its retraction back into the One, which is the theme of the extraordinary work of the Irishman of the ninth century.

Ramon Lull (1232 to *circa* 1316) was born more than three and a half centuries after the time (conjectured to be between 867 and 879) in which Scotus wrote the *De divisione naturae*. Not much is known about the influence of the work during the earlier centuries, but during the twelfth century there was a revival of interest in it which seems to have reached its culmination around the beginning of the thirteenth century, that is to say, the beginning of the century in which Lull was born and in which he lived most of his life. This revived interest may have been in part due to Honorius Augustodunensis who was deeply imbued with the teaching of Scotus and popularized it in his own works.<sup>57</sup> Honorius,<sup>58</sup> who must not now be called, as formerly, 'Honorius of Autun', since deep doubt has



been cast on his connection with that place, probably studied at Canterbury under Anselm and afterwards, again probably, settled at Regensburg in Bavaria where he lived the life of a recluse and wrote his books. There was a community of Irish monks in Regensburg, and it has even been rumoured that Honorius himself was an Irishman, but there is no evidence for this. At some time or other Honorius must have met with a manuscript of the *De divisione naturae*; its influence has been observed in several of his works, whilst one of them is entirely based upon it. This is the *Clavis physicae*. The date at which he composed this work is not known, but it would seem that he was born about 1090 and was engaged in writing and revising his books until about 1156. The *Clavis physicae* has never been printed [but cf. p. 8], though there are extracts from it in the monograph on Honorius by J. A. Endres.<sup>59</sup> Several manuscripts of it exist, among them an illustrated manuscript in the Bibliothèque Nationale<sup>60</sup> which has been studied by Mlle M.-Th. d'Alverny in a most learned and interesting article.<sup>61</sup>

The *Clavis* is a selection from the *De divisione naturae* from which it copies very long extracts literally, though sometimes abridging, modifying, or introducing comments. In the Bibliothèque Nationale manuscript there are two schemata, perhaps drawn up by Honorius himself or under his direction,<sup>62</sup> in which the ambitious attempt is made to present in diagrammatic form the complicated and subtle arguments of the ninth-century thinker. In one of them (Pl. 15a) the fourfold division of nature is set out in the form of a logical diagram. From 'Deus' there branch two opposed medallions in which are written *natura creans* and *non creata*. Then comes *Principalis causa*, under which is written *Bonitas*, standing for all the primordial causes, with on the one side *natura creata* and on the other *et creans*. Then comes *Effectus causarum*, under which is written *elementa*, with on the one side *natura creata* and on the other *non creans*. Finally there is *Finis omnium*, and under it *Deus*, flanked by *natura non creans* and on the other *nec creata*. The whole forms a kind of schematized tree, and is obviously modelled on the traditional logic diagram of the tree of Porphyry.

The interest of such a schema as this to the student of Lull is very great, for here is the Scotist scheme set out in Lull's favourite tree form. I am advancing no argument here as to whether or not Lull knew Honorius' work (such an argument would demand a detailed study of the unpublished text of the *Clavis*) nor suggesting that he had seen the Paris manuscript, which is unlikely.<sup>63</sup> But what such a schema as this shows us is that the twelfth-century student of Scotus

was moving towards a simplified diagrammatic presentation of his philosophy, and such a movement is very much in Lull's direction, towards his schematization of the system in the diagrams of his Art, or in his encyclopaedias.

Another schema in the Paris manuscript (Pl. 15b) is in the same form, but presents, instead of the four divisions of nature, the first two and a development of the third. *Deus* is flanked by *anarchos* and *sine principio*, representing the first division of nature. Then comes the second, here called *archetypus mundus*, with on the one side four primordial causes, Bonitas, Essentia, Sapientia, Vita, and on the other *in Filio cause omnium*. What follows is a development of the third division, labelled *elementa* on the other schema, namely the stages of the ladder of being formed out of the elements. First comes Angelus, then Homo, then the sensible world (living beings other than men), then the vegetable world (plants, trees and so on), then the inanimate world, such as stones. This is the five-fold scale such as it is given by Scotus.<sup>64</sup>

This schema presents what Lull would call the ladder, and we may compare it with the alphabet of the *Ars brevis* (Pl. 14e), where we see on the first row Bonitas, etc., corresponding to *archetypus mundus* in the Scotist schema, and in the fourth row Deus, Angelus, Coelum, Homo, Imaginatio, Sensitiva, Vegetativa, Elementativa, Instrumentativa. Though there are differences, there are also obvious affinities between the Scotist schema and the schematization of the Lullian Art in the *Ars brevis* alphabet. One could also point to the schematic trees of the *Arbor scientiae* which show the ladder of the subjects of the Art in a more elaborate form.<sup>65</sup>

Though the schemata of the Paris manuscript of the *Clavis physicae* are highly suggestive to the student of Lull, the miniature painting from the same manuscript (Pl. 16) is of a still greater fascination.

The top of the page has been left blank, and Mlle d'Alverny suggests<sup>66</sup> that this represents the inexpressible first division of nature, *creat et non creatur*, or God 'super omnium quod dicitur et intelligitur'.

Then comes the second division, and the artist presents us with the primordial causes in the form of eight human figures. In the centre is Bonitas, a crowned figure wearing a priestly vestment and with his right hand raised as though in blessing. He is flanked by seven veiled female figures. They are Essentia, Vita, Sapientia, Veritas, Ratio, Virtus, Justicia. Read in this order, they correspond to one of Scotus' lists of the primordial causes<sup>67</sup> which he took from

the Divine Names of Pseudo-Dionysius. In fact the artist leaves us in no doubt as to what these figures represent, for the caption below them is 'Primordiales cause'. We are here in the second division of nature, *creatur et creat*, in the realm of the primordial causes.

Next, we are shown the third division, in two rows or two stages. Immediately below Bonitas, there is a medallion containing a very curious, shapeless-looking object; the inscription around the medallion reads 'materia informis'. We are being shown that inconceivable stage of the creation, which in Genesis is 'without form and void', in the *Timaeus* is the formless matter called *byle*, and in Scotus is the first effect of the primordial causes. In the caption below is written 'effectus causarum'. Gazing more attentively at the inform matter, we perceive that it is not so formless as at first appears; four faces are developing out of it, with four eyes, four noses, and four mouths.<sup>68</sup> These must be the 'catholic elements', created by the primordial causes, the first effect of their creative power; the universal elements in their inconceivably pure and primaeval state as they issue out of the causes.<sup>69</sup>

The Inform Matter is flanked by two medallions labelled respectively 'Tempus' and 'Locus'; these are personifications of the categories of place and time, to which the inform matter is subject. The matter is, in fact, taking on form through these categories, just as it is beginning to divide into the forms of the four elements.

All three medallions are set in an irregularly shaped band which we may perhaps take to be the firmament, dividing the waters above the firmament, that is the primordial causes, from the waters below the firmament, which are the four elements which we see in the next row or division of the picture, in four arcades labelled Ignis, Aer, Aqua, Terra. The 'catholic elements' of the firmament have developed into the familiar four whose interweaving patterns form the groundwork of the whole creation.

In the 'Ignis' arch are three figures wearing haloes; these are angels; above them are four globes representing the stars. In 'Aer' are birds flying amidst clouds in the sky; in 'Aqua', fishes swimming in water pouring from a jar; in 'Terra' are a man and a woman, three animals, and behind them are vaguely indicated rocks and trees.

In her commentary on the picture, Mlle d'Alverny points out that the artist is in part following the passage in the *Timaeus* which divides the whole creation into four 'races' of beings, the celestial race of the stars of heaven, the race of aerial creatures, of watery



creatures, and of creatures of earth.<sup>70</sup> The artist, or his adviser, need not however have turned to the *Timaeus* for this classification, but could have found it in the *De divisione* itself.<sup>71</sup>

The Scotist physics is the Platonic or 'Timaeian' physics (for it was mainly derived from the *Timaeus*) which was followed by most of the Fathers of the Church, including Augustine, and which dominated the early Middle Ages. According to it, the stars are not formed of a 'quintessence', as Aristotle taught, of a nature quite different from that of the four elements, but of the same elements as the rest of creation though in a refined and subtilized form in which fire and air predominate.<sup>72</sup> Fire and Air are lighter than Water and Earth, and more 'spiritual', and they predominate in the 'higher creation. Extending this to the Pseudo-Dionysian hierarchical way of thinking, the angels, which are pure intellect, take on igneous forms, hence their apparitions as forms of light; they are higher in order than the stars which, however, are also made of spiritualized and subtilized forms of the elements, and particularly of fire.

What is strange in the Scotist scheme is his conception of the elements as in the nature of subsidiary emanations, emanating from the primordial causes. In this sense the elements, or, so to speak, the 'ideas' of the elements, are the intermediary between the primordial causes and the whole creation, and hence above the whole creation. The picture translates this conception quite clearly. The emerging elements in the inform matter, deriving immediately from Bonitas above them, are on a higher level even than the angels, and certainly than the stars, though these are the highest and most 'igneous' of created things.

If we care slightly to re-arrange the subjects of the pictures of the four elements we arrive at the 'ladder' of creation.

- Angelus. The three angels with 'Ignis'.
- Coelum. The celestial globes with 'Ignis'.
- Homo. The man and woman in 'Terra'.
- Sensitiva. All living creatures other than man, the birds in 'Aer', the fishes in 'Aqua', the animals in 'Terra'.
- Vegetativa. The trees or plants in 'Terra'.

The whole ladder of creation is thus included in the four pictures, and, in effect, the caption under them tells us that they represent the third division in nature; *natura creata, non creans*.

Of the man and woman in 'Terra', Mlle d'Alverny has remarked that this couple 'ne rappelle que de fort loin Adam et Ève'.<sup>73</sup> Is it

perhaps possible that they represent the redeemed man? Scotus was fond of emphasizing that in Christ the division between the sexes is abolished,<sup>74</sup> and these two appear to be sexless creatures. We notice, too, on the man's robe three small dots which also appear on the robes of some of the 'primordial causes'. Are we therefore perhaps intended to see in this man, man as the image of God the Trinity, man restored to the 'Dignity' of the divine image, man who through his soul and body is the nexus of all creation?

With the last division of the picture, or 'Finis', we reach the fourth division of nature, God as the End of All, or *nec creat nec creatur*, and the artist has tried to show us the Word as the End. In His hands He holds cords, divided into two sets of three, symbolizing how He draws the Medium back to Himself, to the Principium in the primordial causes.

Like the schemata, this picture illustrates a marked tendency towards the schematization of the Scotist philosophy, perhaps, too, an attempt to fasten it on to a 'numerological' basis.

As we have seen, Scotus' lists of the primordial causes are vague and variable. He does not tie himself down to any particular number for these ineffable intermediaries which he places between the Unknown God and His creation. Or rather, as he explains in the important passage quoted in full in the Appendix to this article, the arrangement and order of the causes belongs in the mind of the contemplator, not to the unspeakable reality itself. The person engaged in contemplating the causes, as a religious and mystical exercise, can therefore vary their number and order to suit the 'theories' he is building upon them. In the passage quoted in the Appendix, Scotus was using fifteen causes; he did, therefore, envisage using definite numbers of causes in these exercises, and since he was much addicted to number mysticism, numerological considerations<sup>75</sup> would no doubt come in when choosing a set of causes on which to meditate.

The artist of the picture, or his adviser (we cannot be quite sure, according to Mlle d'Alverny, that Honorius himself is behind the picture as he almost certainly is behind the schemata),<sup>76</sup> presents us with eight primordial causes. Perhaps the contemplative mind behind the picture, is formulating his primordial causes as eight in order to fit numerologically with the four of the elements. That these eights and fours have to be integrated with the Three of the Trinity is probably suggested through the cords in groups of three held by the Word.

Ramon Lull was confronted with such problems as these when formulating his Arts. In his valuable study of the varying numbers of the 'Dignitates Dei' which Lull uses in successive forms of the Art, R. Pring-Mill<sup>77</sup> has suggested that the number sixteen used in the *Ars demonstrativa* was chosen to fit with the fours of the elemental figures, and that in changing the sixteen to the nine used in the *Ars inventiva veritatis*, and all subsequent forms of the Art, Lull was trying to find a numerological formulation which would fit better with the essential Three of the Trinity.

The mind behind the picture in the Paris manuscript of the *Clavis physicae* is, we would suggest, wrestling with similar numerological problems to those which confronted Ramon Lull a century later when he was trying to build his Arts on the Scotist philosophy.

We have introduced at this point in our argument the Paris manuscript of the *Clavis physicae*, its schemata and its remarkable illustration, not because we wish to argue that Lull necessarily knew Honorius' abridgement of the work of Scotus, or that he had seen the illustrations in this manuscript (as already mentioned, this is unlikely), but for the sake of the clarification of the Scotist four-fold scheme of nature with which the schemata and the illustration present us in visual form. In the remarkable painting, where we actually see the primordial causes, Bonitas and the rest, see also their first effect in the development of the pure elements in chaos, and their subsequent effects through the picture of the four elements, we have a 'visual aid' which helps us to grasp very clearly the rather literal way in which the two middle terms of the scheme — primordial causes and elements — were interpreted in the twelfth century. And if we keep that picture in mind it will help us in the difficult task upon which we now embark of tracing the foundation in Scotist philosophy of the Arts of Ramon Lull.

Lull's *Liber chaos*, written about 1275, is a work which has been very little noticed — indeed hardly discussed at all — by modern students of Lull, although it is printed in the great Mainz edition.<sup>78</sup> Earlier Lullists, however, attached much importance to the *Liber chaos*. And Lull himself says in the opening words of the book that it is closely connected with the 'second elemental figure':

Secundum modum secundae figurae elementalis fit haec positio, quam Chaos appellamus.<sup>79</sup>



The 'second elemental figure' is, of course, the second of the two elemental figures (Pl. 14d) which belong to the *Ars demonstrativa*. This Art was one of the earlier forms of the Art based on sixteen, that is to say based on sixteen Dignitates Dei or divine principles, namely Bonitas, Magnitudo, Aeternitas, Potestas, Sapientia, Voluntas, Virtus, Veritas, Gloria, Perfectio, Justitia, Largitas, Misericordia, Humilitas, Dominium, Patientia. These are the sixteen which are designated by the letters BCDEFGHIKLMNOPQR in the Art and which we see set out on the wheel in its first figure (Pl. 14a). This figure showing the sixteen Dignitates is the primal or first and basic figure of the Art, on which all else depends, and the elemental figures, particularly the second elemental figure, are also — so Lull himself emphasizes — absolutely essential for the understanding and working of the Art.<sup>80</sup> The elemental figures consist of combinations of the four elements, Ignis, Aer, Aqua, Terra.

Chaos, so Ramon Lull tells us in his *Liber chaos*, is a confused mass which contains, in some confused way within itself the essences of the four elements, namely Igneitas, Aeritas, Aqueitas, Terreitas.<sup>81</sup> Chaos may therefore be spoken of as divided into these four parts which are the elements as essences, having no bodily form. In another passage, he speaks of Igneitas, Aeritas, Aqueitas, Terreitas, as 'simple essences' in chaos, and of chaos itself as 'universal'.<sup>82</sup>

The Lullian conception of chaos is immediately illumined for us by looking at the picture in the *Clavis physicae* in which we see the inform matter which is the effect of the primordial causes developing into the half-formed faces which are, or which will become, the simple, universal, and catholic elements.

Also included in the Lullian chaos are the ten categories and the five predicables of Aristotelian logic.<sup>83</sup> These are listed in the usual exhaustive Lullian manner, with long paragraphs on how substantia is in chaos, how quantitas, qualitas, relatio, locus, tempus, and so on.<sup>84</sup> We would suggest that this curious conception is also illuminated by looking at the *Clavis physicae* picture, where we see Locus and Tempus emerging into being, as it were, beside the inform matter, as belonging to the effects of the primordial causes.

In short, it may be suggested that Lull's chaos is Scotist in conception. Its formlessness is not the disorder of evil, but near to the divine informity. The pure and simple or 'catholic' elements (Lull does not use the word 'catholic' of his elemental essences but he speaks of the chaos of which they are formed as 'universal') are

developing within it and it is beginning to be formed by the forms of logic, as though these, too, were a divine creation, a divine mode of forming the inform matter. We may remember here the criticism of Scotus as a logician, that he 'hypostatizes the *Tabula logica*'. The logical categories as they are in the Lullian chaos are directly connected with the Art, for we are told that they explain, or represent, the T figure of the *Ars demonstrativa*.<sup>85</sup>

When the French scholar Littré made his brief examination of Lull's *Liber chaos*, he was, as usual, much disgusted with the curious confusions in Lull's thought. The presence of the categories in chaos seems to him mere nonsense, and of the elemental essences he observes, 'C'est la qualité intrinsèque de chacun (des quatre éléments) qui, d'abstraite devenue réelle, figure dans cette conception.'<sup>86</sup> This is, I believe, a correct observation. The elements in this 'essential' and universal form *are* reals: they are the ideas of the elements (though this word is not used by Lull).

What conception of the elements is there with which what we find in the *Liber chaos* can be compared? Is it not the Scotist conception, in which the elements are the third division of nature, the creation of the primordial causes, and so near to these divine essences or ideas, that they seem almost like subsidiary emanations or ideas issuing from them?

The *Liber chaos* is not taken straight out of Scotus on the inform matter in the *De divisione naturae*, for there is other matter in it and characteristically Lullian developments and divisions of the basic conception. For instance, Lull divides his chaos into three parts or 'grades'. We shall not follow up these differences here, but have concentrated only on the resemblances.

The connection between the elements as they are in the *Liber chaos* and the *Ars demonstrativa*, based on Bonitas and fifteen other Dignitates Dei, is made through the second elemental figure, which, if I understand Lull rightly, represents the elements as they are in chaos, or as they issue from chaos in the pure and universal form. The connection is made, not in the *Liber chaos* itself but in the work explaining the *Ars demonstrativa* (*Compendium seu commentum artis demonstrativae*) which immediately follows the *Liber chaos* in the Mainz edition. This compendium includes parts on the elemental figures, amongst which is the following paragraph on the combination *ignis, ignis* of the second elemental figure:

Dignitates, essentia & unitas Dei significant, igneïtatem simplicem esse unam de quattuor essentiis, de quibus tota

essentia chaos constituta est, & denotant etiam, ipsum ignem simplicem esse ens constitutum de primis simplicibus formis, quae sunt similitudines dignitatum Dei; nam in eo, quod ignis est bonus, habet similitudinem bonitatis Dei, & quia est magnus in existere at agere, habet similitudinem magnitudinis Dei. . . . Per aeternitatem denotatur, quod ignis habet conditionem durandi, & per potestatem conditionem possificandi, & per sapientiam directionem ad objectum sibi naturale effective. Per voluntatem conditionem seu proprietatem appetendi suum locum & suas perfectiones. Per virtutem conditionem virtuativam & virtuabilem. Per veritatem conditionem essendi actu. Per gloriam conditionem ardentis laetitiae effective. Per perfectionem conditionem perficiendi. Per justitiam proportionem suarum partium adinvicem. Per largitatem diffusionem & exhalationem effective. . . . Per simplicitatem conditionem essendi simplex. Per nobilitatem conditionem essendi nobilior caeteris tribus elementis. Per Dominium conditionem praedominandi caeteris elementis in mixto. Ex omnibus igitur his similitudinibus DEI est essentia ipsius ignis constituta.<sup>87</sup>

What does this mean? How do the 'dignitates' essence and unity of God 'signify' that 'igneitas' is one of the four essences from which chaos is composed. How is it that 'simple ignis' can be a similitude of the Bonitas, Magnitudo, Aeternitas, Potestas, Sapientia, Voluntas, Virtus, Veritas, Gloria, Perfectio, Justitia, Largitas, Simplicitas, Dominium, of God – that is of the Dignitates Dei on which the Art is based?

We suggest that the passage can only be explained in terms of the Scotist scheme in which Bonitas, and the other Names of God, become primordial causes creating in chaos the four simple elements. Hence the four simple elements are very close to the Dignitates Dei: and *ignis* in particular, being the lightest and the highest of the four,<sup>88</sup> takes precedence over the other three and is nearer than they to the divine. Lull has avoided using the words 'create' or 'effects' of the relation between the Dignities, Essence and Unity of God and the elemental essences in chaos, using instead the words 'signify' and 'similitudes'. It is an important verbal distinction, certainly. But when we look back again at the illustration to the *Clavis physicae* and see Bonitas, Essentia, Vita, Sapientia, Veritas, Ratio, Virtus and Justitia as it were pouring their 'effects' into the inform matter below them whence the simple elements are emerging, we feel ever



more strongly that in the Scotist divisions of nature lies the clue to the connection between Dignitates and elements in the Lullian Arts.

As a result of this discovery, we have to revise our estimate of the position of the elements in the Lullian hierarchy of being. It is true that in their close association with Bonitas, and the rest, the elements descend right down the ladder of being to the lowest of created things, and hence the ascent upwards may be made through tracing, for example, Bonitas-Ignis on every step of the ladder. But their genesis is not at the bottom but very near the top, in fact only just below the Dignitates, from which, as essences, they proceed immediately as the third division of nature.

In forms of the Art later than the *Ars demonstrativa*, Lull changed the number of Dignitates on which the Arts were based from sixteen to nine,<sup>89</sup> namely Bonitas, Magnitudo, Aeternitas, Potestas, Sapientia, Voluntas, Virtus, Veritas, Gloria. With these he associated nine *relata*, namely Differentia, Concordantia, Contrarietas; Principium, Medium, Finis; Maioritas, Aequalitas, Minoritas. In 1295 he wrote a work to explain, or to make clearer, the *Ars inventiva veritatis* which is a nine form of the Art. This explanatory work is the *Arbor scientiae*, or *Arbre de sciencia*<sup>90</sup> in the Catalan version, and it is in the form of a series of tree diagrams.

The first tree which meets the inquirer when he enters the Lullian forest is the 'Arbor Elementalís'. I made a careful examination of this tree in my earlier article as part of my exposition of the importance of the elements in Lull's mental processes and in his Art. I had then, however, no idea of the source at which Lull was drinking. It is therefore with new eyes that one turns once more to inspect the 'Arbor Elementalís' (Pl. 17a).

The tree should be turned upside down in order to follow its argument in order, beginning with the roots, following the roots into the trunk, from which the rest of the tree branches out.

The roots of the tree are the nine of the new Art, namely Bonitas, Magnitudo, Aeternitas, Potestas, Sapientia, Voluntas, Virtus, Veritas, Gloria, together with the nine *relata*.<sup>91</sup>

From these roots there grows the trunk of the tree, and this trunk is a confused body called chaos ('cors confús qui es appellat *chaos*').<sup>92</sup> Another name for the trunk is *hyle*.<sup>93</sup> Clearly this trunk is the inform matter which was the subject of the *Liber chaos*. The trunk is invisible because of the confusion which is in it,<sup>94</sup> and it is 'the general trunk coming from its roots which are first causes' ('Es lo

tronc general de les sues rayls qui son causes primeres').<sup>95</sup> This last definition of the trunk is very important, for since its roots are Bonitas, Magnitudo, and the rest we here have these principles actually named as *first causes*. Can we not now finally equate the Lullian Bonitas etc. as 'first causes' with the Scotist Bonitas etc. as 'primordial causes'?

The branches of the 'Arbor Elemental' are the four simple elements ('Les branques del Arbre elemental son los quatre elements simples').<sup>96</sup> The simple four thus sprout immediately from the chaos-trunk.

From these four sprout other branches which are mixtures of the four simple elements.<sup>97</sup>

The leaves of the tree are the 'accidents' of *quantitas*, *qualitas*, *relatio*, *actio*, *passio*, *habitus*, *situs*, *tempus*, *locus*.<sup>98</sup>

The fruits of the tree are the *elementata*, such as a stone, gold, a fish, a bird, an animal, a man.<sup>99</sup> Since these *elementata* are said to be 'invisible',<sup>100</sup> I am inclined to think that the whole of the Elemental Tree is really in chaos, in the divisions of which (in Lull's *Liber chaos*) were contained, not only the elemental essences and logical categories, but the whole creation *in posse*.

We have much over-simplified the 'Arbor Elemental', but enough has been said to indicate that it surely grows in Scotist soil. From Bonitas and the rest as *first causes* there derives an inform or confused matter called *hyle* from which spring the four simple elements. In other words, the Pseudo-Dionysian Names of God, turned into Scotist primordial causes, pass into the Timaeian *hyle* to produce their effects. The roots of the Lullian 'Arbor Elemental' are in the Scotist second division of nature and the rest of it is in the third division. And this tree, be it remembered, is constructed in order to explain the *Ars inventiva veritatis*, a nine form of the Art in which there are no elemental figures. The absence of elemental figures from an Art therefore does not affect the underlying theory by which Dignitates or principles are linked, through chaos, with the elements.

Obviously, we have here been plunging into very difficult and complicated matters. The argument in the preceding pages is highly abbreviated and much over-simplified. Yet I hope that even from what I have said here the main point is established, namely that the philosophy behind the Arts of Ramon Lull is the Scotist philosophy.

The philosophy of the primordial causes and the elements did not come to Lull in a non-Christian form; he did not have to impose upon it that Augustinian trinitarianism which is such an essential feature of his thought and of his Arts. This work had already been done by Scotus whose aim in the *De divisione naturae* is to correlate the Greek Fathers and the Christian Neoplatonism of the Names of God which he derived from Pseudo-Dionysius, with the teaching of Augustine, and particularly with Augustine's *De Trinitate*.<sup>101</sup>

It has been said that 'The doctrine of the Trinity is not to Erigena merely a mysterious truth of revelation . . . but a fundamental fact in the organization of the universe.'<sup>102</sup> It is the *Essentia* of the Father, the *Sapientia* of the Son, and the *Vita* of the Spirit which are the source of the existence of all. The Father wills; the Son creates; the Spirit perfects.<sup>103</sup> This is the ultimate truth behind the creative system of the primordial causes and the elements. The Son carries out the will of the Father through the primordial causes, of which He, as the creative *Logos*, is the sum total; the Spirit presides over their subsequent effects.

Of the Trinity in its creative aspect, Scotus also uses the following terminology; the *Essentia* of the Father; the *Virtus* of the Son, in the primordial causes; the *Operatio* of the Spirit, in the effects of the causes.<sup>104</sup> This ultimate trinal pattern is reflected in all nature as the trinity of *Essentia*, *Virtus*, *Operatio*. Every creature, visible and invisible, has within it this triad of existence, potentiality, and action, and these three are one.<sup>105</sup> There is also a trinity special to man, distinguished as intellect, reason, and sense.<sup>106</sup>

The Scotist trinal pattern of *Essentia*, *Virtus*, *Operatio* is of course strongly reminiscent of the Augustinian correlatives and Scotus has Augustine in mind when establishing his triads. However, the actual source of the terminology *Essentia*, *Virtus*, *Operatio*, seems to be, not Augustine, but Pseudo-Dionysius in the *Celestial Hierarchies*.<sup>107</sup>

Students of Lull need hardly be reminded of the importance in his system of the 'correlatives'. The Lullian correlatives have been studied anew in recent years in valuable articles by E. W. Platzeck and by R. Pring-Mill. Pring-Mill calls his article 'The Trinitarian World Picture of Ramon Lull', and he carefully analyses Lull's doctrine of the correlatives which 'provides the true warp-and-woof of a universe reflecting the pattern of God's Dignities'.<sup>108</sup> According to Lull it is the triad *Deus*, *Creatura*, *Operatio*, which unfolds itself in the world as the triad agent, patient, action.<sup>109</sup> Lull expresses this through the unfolding of each of his *Dignitates Dei*, or



principia, into triads whose correlative significance is defined by adding suffixes to the name of each principle.<sup>110</sup> Thus Bonitas expands into the correlative forms bonificativum (the agent), bonificabile (the patient), bonificare (the action). Similarly, Magnitudo can expand into its correlatives magnificativum, magnificabile, magnificare, and so on for all the other Dignitates. The example of correlative expansion which is set by the Dignitates is followed on all the inferior levels of the Art, and in this way the trinal pattern can be followed from the lowest level of created things to the summit in the Trinity, and thence again downwards.

It has been rightly emphasized by Platzeck, in support of Lull's Augustinianism, that his doctrine of the correlatives can be regarded as Augustinian.<sup>111</sup> But may it not now be urged that the Lullian correlatives, as Pring-Mill has analysed them as a web of relationships active throughout the universe, are closer still to the Scotist Augustinianism with its 'creationist' emphasis? For in spite of the synthesis which Scotus tries to effect between the Augustinian Trinitarianism and its derived trinal patterns, there is a difference. The Scotist Trinitarianism moves in a 'creationist' direction, and this is largely through the primordial causes.<sup>112</sup>

Does not the power of expansion into correlative forms which the Lullian Dignitates possess in itself intimate the nature of those Dignitates, namely that they are ideas or emanations, containing within them the power of still further emanatory expansion? This expansive power into subsidiary trinities which the Lullian Dignitates possess is, it may be suggested, in itself an indication of their status as Neoplatonic emanations, transformed into Names of God as primordial causes, as in the Scotist system.

And now we must draw attention to a complication in Lull's *Liber chaos* which we omitted in our earlier discussion of that work, namely, that the elemental essences in chaos have the power of correlative expansion.

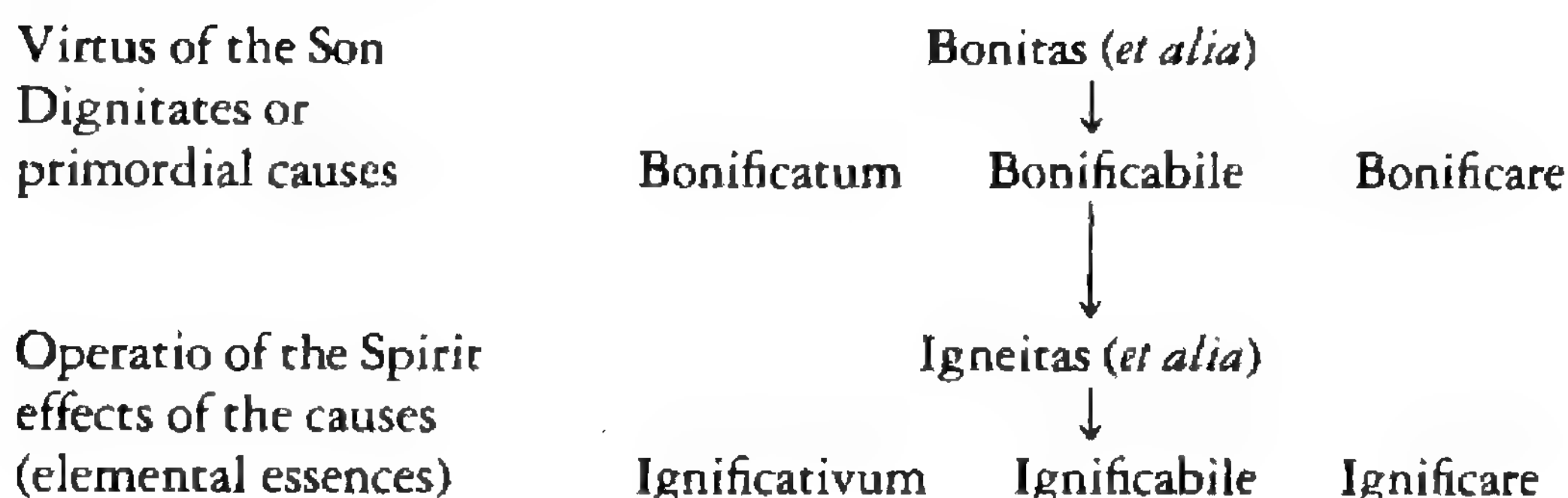
igneitas continet in se de sua essentia ignificativum, ignificabile, ignificare, ignificatum. Aeritas similiter de se continet in se aerificativum, aerificabile, aerificare, aerificatum. Hoc idem similiter sequitur de aqueitate & terreitate.<sup>113</sup>

Lull goes on to explain that ignificativum is the active form (the agent), ignificabile the passive form (the patient), ignificare is the act, whilst 'ignificatum est totum suppositum complexum in natura igneitis'. The first three correlative forms of Igneitas have

therefore precisely the same meaning as the correlative forms of a Dignity, whilst the fourth seems to be merely a composite of the other three.

Set out in a schema, the progressive 'correlativations' of Dignities and elemental essences would be somewhat as follows:

Essentia of the Father



That the elemental essences also contain the expansive power would put them into a class of, so to speak, secondary causes, or secondary emanations from the primal causes.

Pring-Mill has noticed that the Lullian elements develop correlative forms (ignitivum, ignibile, ignire) and has pointed out that, through this, a junction could be made between them and the trinal pattern descending from the Dignitates in their correlative forms;<sup>114</sup> his remarks on this are very suggestive. However, in his article, in which he is using my article on Lull's elemental theory, he follows me in my earlier interpretation of Lull's use of the elemental theory as something through which one argued upwards, as it were, by analogy from the patterns in the natural world to the patterns in the divine world.<sup>115</sup>

It is now, however, obvious that the Lullian elements are, as in Scotus, the immediate effects of the causes, or Dignitates. As elemental essences in chaos they have the same power of correlative expansion as the Dignitates. On the ladder of being, they belong, not at the bottom, but at the top, immediately below the Dignitates themselves. As essences in chaos they are the first stage in the third division of nature, the effects of the causes. They are the Operatio of the Spirit proceeding from the Virtus of the Son.

The source for the Trinitarianism of Lull's Arts, as well as for the system of Dignitates-Causes and elements, can therefore be found in

the *De divisione naturae*. But what of the circular form in which the Dignitates are set out in the first figures of the Arts (Pl. 14a, b), where they appear inscribed (either in full or indicated by letters only) on the circumference of a circle in the first figures of the *Ars compendiosa* and the *Ars inventiva veritatis*, ready to be set in motion as the circles revolve to form the *ars combinatoria*? There is even a passage in the *De divisione naturae* which might well be the germ of these first, or 'A', figures of the Arts, and so the genesis of the *ars combinatoria*.<sup>116</sup>

Near the beginning of the third book of Scotus' great work, the Disciple inquires of the Master in what order the primordial causes ought to be placed. The Master replies that St Dionysius Areopagita has arranged them in a series in his book on the Divine Names, where he puts Bonitas first.<sup>117</sup> The master then lists a series of fifteen causes, which are – at any rate some of them – roughly in the Dionysian order. These fifteen are: (1) Bonitas, (2) Essentia, (3) Vita, (4) Ratio, (5) Intelligentia, (6) Sapientia, (7) Virtus, (8) Beatitudo, (9) Veritas, (10) Aeternitas, (11) Magnitudo, (12) Amor, (13) Pax, (14) Unitas, (15) Perfectio.<sup>118</sup> Up to 'Aeternitas' he gives with each cause the number of its place in the series, but the last five are strung together without such definite numeration. However it is clear that he is definitely thinking of the series as a fifteen, for later on he mentions that in the list which was given earlier, Perfectio had the fifteenth place.<sup>119</sup>

The Master, however, explains to the Disciple that the primordial causes are really infinite in number, that they are one in the Word who contains them all within Himself, as the monas includes infinite number, and that therefore any arrangement of them in a numbered order or series is an arbitrary choice made for purposes of contemplation and for building 'theories' upon them. Such orders of causes belong into the mind of the contemplator; they are arrangements to help his thought and they do not represent the infinite and incomprehensible reality.<sup>120</sup> The pious and pure philosopher may begin from any cause which he may choose, revolving them in a contemplative order as he builds his meditations upon them:

Licet enim pie ac pure philosophantibus ab unaquaque earum [i.e. of the primordial causes], prout vult inchoare, et per ceteras mentis oculum, qui est vera ratio, ordine quodam contemplationis convolvere, omnes, quascunque potest, percipiens, et in qualicunque earum terminum suae theoriae constituere.<sup>121</sup>



In order to make this clearer, the Master reminds the Disciple of the figure of a circle, with straight lines running from the centre to points on the circumference. All the lines from the centre to the circumference are of equal length, with equal spaces between them. They meet as one in the centre, but the spaces between them broaden out as they draw towards the circumference. Moreover, no point on the circumference may be said to be the point at which to begin or end, for it is continuous, whence the circular motion was called *ἀναρχος* by the Greeks, that is, lacking a beginning.<sup>122</sup> This circle may be likened to the meditations of theologians on the primordial causes, beginning where they will, ordering them and numbering them in accordance with their 'theories'<sup>123</sup> or meditations, and reaching a vision of the mystery of how they are one in the Word yet infinite in the innumerable 'theophanies' of their workings. Therefore, there is not really an order of the primordial causes save that which is constructed within the contemplative mind.

Since the Magister makes this comparison with the circle immediately after his list of fifteen causes, we may perhaps be permitted to place these on the circumference of the circle which he describes, thus obtaining the figure shown as Figure 2.1. With this we may compare the 'A' figures of the Arts of Ramon Lull, where the centre of the circle is the nameless 'A' and on the circumferences are inscribed the Dignitates, in one case sixteen in number, in the other nine (Pl. 14a, b). Surely Scotus Erigena has now led us to the very heart and centre of the Arts of Ramon Lull. The passage on the fifteen causes and the circle from the *De divisione naturae* is the 'Revelatio' of their secret. It should be printed in prefaces to editions of the Arts, and most carefully studied by all students of Lull.

One wonders whether the passage may reflect techniques of meditation using revolving circles practised by Scotus himself, or current in his time. Whether or not the passage can bear such an interpretation it may certainly be said that it could have given rise to such techniques. And eventually such techniques, building 'theories' on the causes, reaching back to their ineffable Unity and out to their effects as 'theophanies' throughout nature, infinitely multiplex and marvellous in their extension to the many, and infinitely mysterious in their retraction to the nameless One, might have resulted in the complex phenomenon of the *ars combinatoria* of Ramon Lull.

A difference may be noticed between Lull's 'A' figures and the one which we have constructed from Scotus' directions. In Lull's

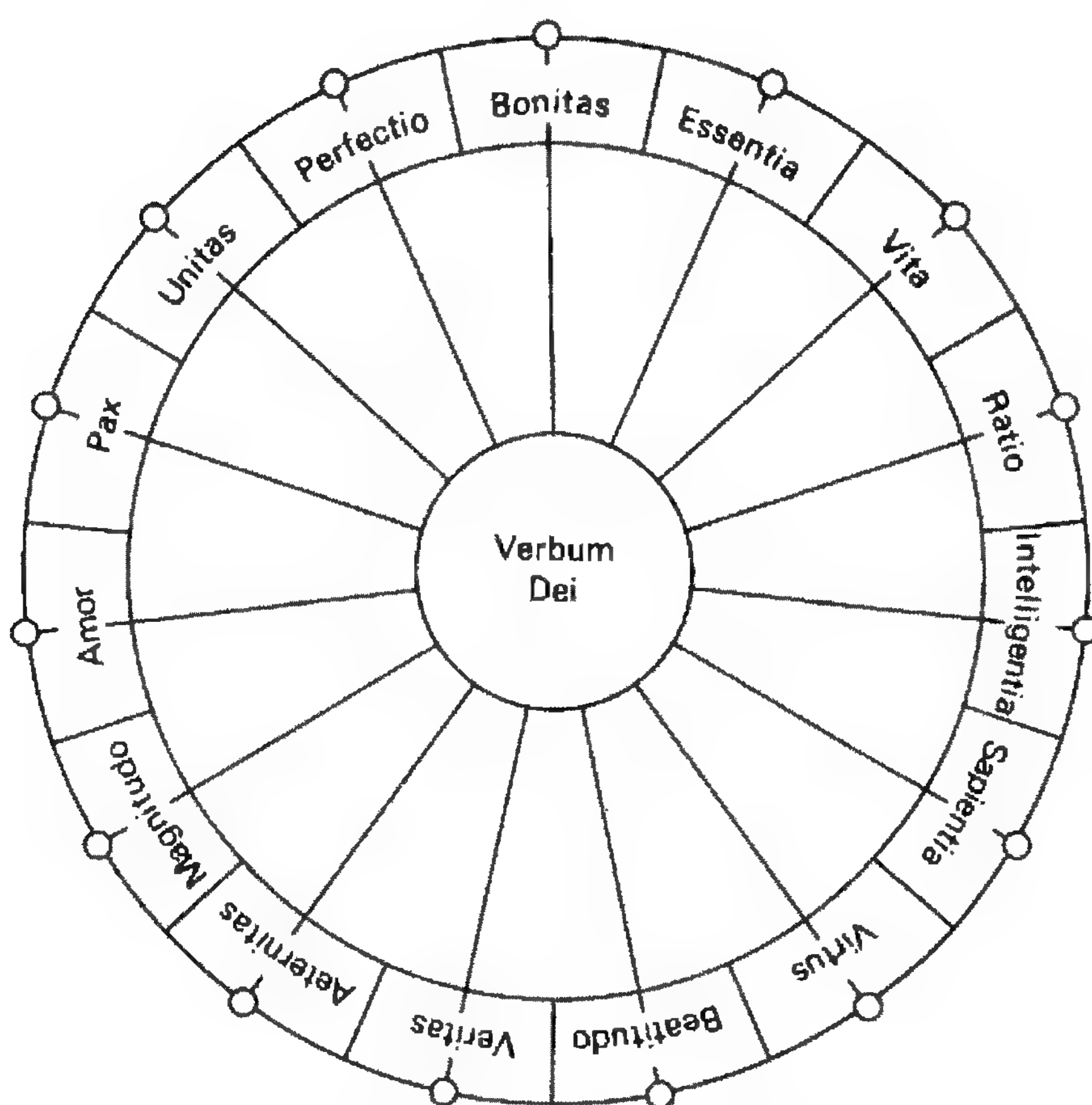


FIGURE 2.1 *Figure constructed from John Scotus Erigena on the Primordial Causes and the Circle*

figures, the lines do not run from the circumference to the centre; they join the points on the circumference, leaving the centre empty for the 'A'. It may therefore be suggested that, whilst the Arts reflect the positive side of the Scotist system, Lull was also not unaware of its negative side, of that 'negative theology' which Scotus derived from Pseudo-Dionysius, according to which God cannot be defined by positive attributes but only by negatives. The primary division of nature, according to Scotus, is into 'all that is' and 'all that is not'. It may be only a coincidence that 'A' might stand for Anarchos, the Nameless and the Formless One, at the centre of the circle on the circumference of which are his Names.

In a remarkable article on Lull's 'A' figure and the 'intelligible sphere' of Plotinus, E. W. Platzeck pointed out that the unity of Lull's Dignitates in the Son shows that he was using a Christian, not an Arabic source, suggested a Pseudo-Dionysian influence, and conjectured a relationship between the 'A' figure and the Plotinian notion of the intelligible sphere.<sup>124</sup> In wondering how Plotinian conceptions might have reached Lull he mentioned the name of John Scotus Erigena.<sup>125</sup> The circle to which Scotus likens the

primordial causes certainly belongs into the current late Neoplatonism<sup>126</sup> which Pseudo-Dionysius inherited and passed on to Scotus, whence it reached Lull.

The work of Lull's which first brought home to me the enormous importance which the elements had for him, and which I examined in my 1954 article from this point of view, is the *Tractatus de astronomia*. Written in 1297, after Lull had changed to the nine form of the Art, this work is using the Art on the subject *coelum*. The divine principles of Bonitas, Magnitudo, etc. are found on every step of the ladder of being as they pour themselves out in what Scotus would call their 'theophanies', though I have not as yet found any use of this word by Lull. The *coelum* comes just below the Angels on Lull's ladder, and just above Man. In the *Tractatus de astronomia*, Lull is inquiring into Bonitas, etc. as they are in the heaven, or the stars.

Lull thinks of the heaven very definitely in an astrological sense, and the stars mean for him the seven planets and the twelve signs of the zodiac and the influences which these have on man and on nature according to the teachings of astrology. As I showed in my article, he works out a system for calculating the influences of the stars in terms of their basic influence on the elements and the elemental qualities, using a revolving figure like the figures used in the arts but which is here certainly modelled on the typical and traditional schemata for representing the signs and the planets, and using also a letter-notation (ABCD) for the elements, reminding one of the letter-notations (BCDEFGHIK and so on) which he uses for the Dignitates, or principles.<sup>127</sup>

Lull explains in this work that it is a new kind of 'astronomy', or rather astrology, which he is here introducing, which is based, not on the 'old principles' used by the astrologers, namely the signs and planets but on the 'new principles' of the heaven, which are Bonitas, Magnitudo, and the rest of the nine.<sup>128</sup> In a curious passage which I quoted in my earlier article, without being able to explain it, he seems to be thinking of the 'influences' of Bonitas, Magnitudo, and the like, as they are in the heaven, being transmitted to things below in the same way as the influences of the signs and planets are transmitted.

Signs and planets do not transmit to inferior bodies anything, either substantially or accidentally, of their essential properties and natures; but they imprint on them (i.e. on the inferior



bodies) their similitudes which are the influences which they transmit to the inferiors. . . . And the similitudes or influences which are transmitted from the superiors are the similitudes of *bonitas*, *magnitudo*, and of the other principles of the heaven, which move the inferior substances so that they become in act those letters which they have in them in potentiality.<sup>129</sup>

I realized obscurely that there was here a link between BCDEFGHIK, or the divine principles, and ABCD, or the elements, through the influences of the stars on the elements which Lull is so carefully calculating in this work. But, having then no idea of the Scotist influence on Lull, I could not understand what the link was.

In the Scotist system, as we now know, the elemental essences are above the stars, above even the angels; they proceed immediately from the causes. It would therefore now seem that what Lull is doing is to adapt the Scotist system to astrology. When the divine principles, in their close association with the semi-divine elements reach the *coelum* in the downward pouring of their theophanies through creation, their *subsequent* influences on things below the stars can be associated with the normal astrological influences on the elements, except that such influences are now always good, for the 'proper qualities' of the elements, or the strongest qualities, are identified with their essential Bonitas, and so on.<sup>130</sup>

It is therefore certainly a new kind of astrology which Lull is doing in this work;<sup>131</sup> it is an astrology adapted to Scotism.

One cannot get rid of the astrology in Lullism by saying that it is only in the *Tractatus de astronomia* because, as I showed in my article, the whole theory of the *Tractatus* is repeated in two of the encyclopaedic works designed to explain the Art – in the 'Arbor Coelestis' of the *Arbor scientiae* and on the step *coelum* of the *Liber de ascensu et descensu intellectus*, not to mention other works.<sup>132</sup> The adaptation of the Scotist system of the primordial causes and the elements to a 'new' kind of astrology was thus an essential part of the Lullist scheme.

Now there is no astrology in the *De divisione naturae*. Scotus' discussion of the heaven appears to be genuine Greek astronomical science, and not at all astrological.<sup>133</sup> He is indeed highly unusual in putting forward a partial heliocentric system, stating that Jupiter, Mars, Venus and Mercury revolve around the sun, an improvement on the Heraclidean system (of which he probably knew through Martianus Capella) which was not to be repeated in Western Europe until the days of Tycho Brahe. There is no trace of this in Lull, who

seems firmly fixed to the traditional system used by the astrologers.<sup>134</sup> Scotus' elemental essences are, of course, above the stars; and in his discussion of the elements and elemental qualities derived from these there is no suggestion of astrological influences upon them. What he has in mind is Greek philosophical theory of the elements, which has reached him in a mysticized form through the Greek Fathers. With regard to the stars and the elements, however, he is certainly imbued with the theory of the *Timaeus*, that the elements as they are in the stars are in a finer and more subtle form than they are lower down in the scale of creation, a form in which the light and 'spiritual' elements of Ignis and Aer predominate. This we can indeed see in the useful illustration to the *Clavis physicae* in which Angels appear in the Ignis section, together with the stars as 'globes of fire' (as Anselm calls them,<sup>135</sup> following the Platonic physics accepted by early Christian mediaeval writers, before the introduction of Aristotle).

It is, I think, probable that Lull also holds the view that the elements are of the finer quality in the stars. Whether he also subscribes to the 'Timaeian' view that there is rationality in the stars, that these are intelligible beings, informed with the *anima mundi*, I would prefer to leave as an open question, awaiting further careful examination of the *Tractatus de astronomia*.<sup>136</sup> The illustrator of the *Clavis physicae* seems to ascribe such a view to Scotus, when he shows the *anima mundi* with her head among the stars.<sup>137</sup>

Leaving such problems as too important and too difficult for a merely passing treatment, I would here only put forward the view that, so far as I can see at present, the astrology in Lullism is an insertion by Lull into the Scotist system, an insertion for which there is no justification in the *De divisione naturae*.

One cannot help feeling that it is a falling off from the profound and mystical interpretation of the circle which we found in the 'A' figure of the Art, to find that when the circle of the causes has descended to the step *coelum* it has behind it an ordinary astrological diagram. And indeed it will probably be found, when scholars have had time to work on all this new material, that Lull has hardened, stiffened, and impoverished the marvellous subtlety of the Scotist system in the process of turning it into an Art.

Lull's justification must be that he is using the system with a different purpose. Scotus was developing a Christian, mystical, and indeed apocalyptic philosophy of nature. The expansion of the One into the All, through the primordial causes and the elements, was

followed by the Redemption of the All back into the One. In Lullism, this tremendous conception turns into a way of ascending and descending on the ladder of being, through the causes and the elements, which is to be used for his apologetic purpose of convincing unbelievers of the truth of the Christian revelation and of the Trinity. For such a purpose, the introduction of the astrological science accepted by his hearers of all creeds, whether Christians, Jews, or Moslems, would have had its advantages. It may be, however, that the astrology in the Art did not come into play when it was being used for purposes of religious apologetic, but only when sciences, like astrological medicine, based on its principles, were being used.

For it must be remembered that Lull's adaptation of Scotism into a scientifically organized Art made it possible for it to be used as an instrument for calculating elemental influences in the sciences, or pseudo-sciences. He used the letter-notations and figures of the Art in his own works on astrological medicine, and – though Lull himself was not an alchemist and never used the method for alchemical purposes – his successors, the pseudo-Lullists, were to do so.<sup>138</sup> This development would not have been possible without the introduction of astrology into the Art. We may therefore see in the Lullian Art the beginnings of a process through which methods designed for purposes of mystical contemplation of the workings of God in nature turn into scientific, or pseudo-scientific, methods.

Up to the present, we have really had nothing with which to compare Lull. Apart from the obvious Augustinian influence, no other source has been certain. This situation is now completely revolutionized, and a door has been opened through which students of Lull may pass to absorb themselves in the quarter of a million words<sup>139</sup> of the *De divisione naturae*, an almost inexhaustible store of wealth in which treasures not touched upon at all in the present article await them. There is, for example, the Scotist development of light as the higher form of ignis, based on the *Fiat lux* of Genesis,<sup>140</sup> which makes it possible for him to express the inter-relations between the Trinity in terms of ignis,<sup>141</sup> and which will probably go far to explain Lull's *Liber de lumine*. Or there is his treatment of the unity of the liberal arts,<sup>142</sup> based on Martianus Capella, to study for Lull's encyclopedism. Or there is the Scotist numerology and arithmology, his Boethian geometry,<sup>143</sup> to work upon for the Lullian numerology and geometry. Or there are the Scotist allegories, particularly, perhaps, his development of the



*Lignum vitae*<sup>144</sup> (four centuries before Bonaventura) to meditate upon when we speculate as to what his favourite 'trees' may have meant to Lull. Nor has the present article by any means exhausted, but has really only initiated, the fundamental question of the primordial causes and the elements in Scotus and in Lull. A problem which I have hardly touched is the question whether the Lullian 'devictio' by which 'proper qualities' are always victorious can be related to the Scotist notion that 'superiors', in the scale of being, have more reality than 'inferiors'.<sup>145</sup> Again, it must be investigated whether the Scotist passages on virtues and vices<sup>146</sup> can yield an explanation of the Lullian system by which virtues seem to 'devict' vices on the analogy of the elemental 'devictio'.<sup>147</sup> Much therefore remains to be done, and it may well be many years before final conclusions can be drawn from all this new material.

Moreover, in our enthusiasm over this discovery, it would be unwise to abandon the older lines of inquiry into Lull's sources, though these may take a new direction. For instance, the old question of Arabic influence may not be finally disposed of, even though we now know the main source, and know that it is a Christian source. It was a part of Lull's apologetic method to make his arguments acceptable to unbelievers, and this might well have involved use of Arabic sources containing Neoplatonic tendencies similar to the Scotist Neoplatonism. It is in fact known that Scotus' work influenced some Arabic thinkers. Particularly is this the case with the Judaeo-Arabic writer known to the Middle Ages as 'Avicbron', whose *Fons vitae*, according to Duhem,<sup>148</sup> constantly echoes the *De divisione naturae*. It might therefore be a guide to subsidiary Arabic sources for Lull, if there are any such, to search in those who are known to have been influenced by the Greek Fathers, by Pseudo-Dionysius, or by Scotus himself.

The other old problem, namely the question of whether or not Lull was influenced by the Jewish Cabala, may now appear in quite a new light. For the mysticism of the Cabala is a closely *parallel* phenomenon to the Scotist mysticism. In the Hebrew Cabala, the sephiroth derive from the nameless 'en-soph', and the names of the sephiroth are Gloria, Sapientia, Veritas, Bonitas, Potestas, Virtus, Eternitas, Splendor, Fundamentum<sup>149</sup> — a series in which many, indeed most, of the divine attributes are the same as those found in the Pseudo-Dionysian Names. There are other points in common between Scotism and Cabalism, and Duhem was so much struck by the coincidences between the *Zohar* and Erigena's doctrine that he supposed that the Cabalists who wrote it were familiar with the

Scot's work.<sup>150</sup> Though I would not presume to have an opinion on a matter which only Hebrew scholars can decide, I would point out that Cabalism and Lullism (which we now know to be a form of Scotism) are phenomena which arise in Spain at about the same time. The *Zohar*, as G. Scholem has shown, derived from the school of Cabalism at Gerona in Northern Catalonia, and was written about 1275 in Castile.<sup>151</sup> It was in the year 1274 that Lull had the vision on Mount Randa in which the two primary figures of the Art, the 'A' figure and the 'T' figure, were divinely revealed to him.<sup>152</sup> It is not without significance that at about the same time the *Zohar*, with its fervent exposition of the doctrine of the sephiroth, was taking shape. The problem of the Cabala in relation to Lull begins to take a slightly different form. We should ask, not so much whether Lull was influenced by the Cabala, but whether Cabalism and Lullism, with its Scotist basis, are not phenomena of a similar type, the one arising in the Jewish and the other in the Christian tradition, which both appear in Spain at about the same time, and which might, so to speak, have encouraged one another by engendering similar atmospheres, or perhaps by actively permeating one another.

It is now certain, however, that the main source of Lull's ideas was neither Arabic nor Hebrew but Christian, namely the *De divisione naturae* of John Scotus Erigena, where is expounded a Christian philosophy strongly influenced by the Greek Fathers and by Pseudo-Dionysius but which its author tried to integrate with the Latin Christian tradition and particularly with Augustine.

The history of the influence of Scotus is rather curious.<sup>153</sup> During his lifetime he was involved in various theological controversies and some of his views were condemned in early Councils of the Church. Notwithstanding that his influence was considerable in the early Middle Ages, and has been detected possibly in Anselm, and certainly in Hugh of St Victor and Richard of St Victor. These, it will be remembered, are among the Latin Christian writers who have been suggested as influences on Lull.

The influence of Scotus seems to have been on the increase throughout the twelfth century and reached its height about the beginning of the thirteenth century.<sup>154</sup> This vogue may have been in part due to the writings of Honorius Augustodunensis<sup>155</sup> whose *Clavis physicae*, as we have seen, is a selection from the *De divisione naturae* and whose other works also exhibit Scotist tendencies. It seems to be fairly certain that Honorius lived as an 'inclusus', or

hermit, at Regensburg, and it is quite certain that there was a monastery with an Irish tradition, probably inhabited mainly by Irish monks, near Regensburg. The question may therefore be naturally asked, but not answered, whether this had anything to do with Honorius' knowledge of the work of the great Irishman of the ninth century. Here it is perhaps relevant to mention that R. Klibansky pointed out some years ago that there is a manuscript in the Bodleian containing the *Timaeus* in the version of Calcidius and the *De divisione naturae* of Scotus, both works being written in Irish hands, which are probably of the early twelfth century.<sup>156</sup> This may indicate that one of the channels for the propagation of Scotus' work in the twelfth century might have been the Irish monastic tradition, but nothing can be built upon an isolated fact. As for the question which it now occurs to us to ask, and which has almost certainly never been asked before, we can feel pretty sure before we ask it that it is unanswerable. Was there a technique of meditation on the *De divisione naturae* in the Irish monastic tradition, perhaps using revolving circles or figures? Could there have been a group of 'Scoti' in Spain, or in Majorca, with whom Lull could have been in contact? The latter question could probably be answered, either in the affirmative or the negative, by investigation, but this might not tell us much — even if the answer were in the affirmative — unless an answer were forthcoming to the first question.

Then there is the problem of Honorius himself and Lull. Could Lull have seen a manuscript of the *Clavis physicae*? Is he using that work rather than a complete manuscript of the original? To answer this would involve investigating whether the parts of the *De divisione* which Honorius includes are those most likely to have influenced Lull. This might also well be an insoluble problem. However, the *Clavis physicae* must certainly be taken into account as a possible means through which the Scotist influence might have reached Lull. It seems to me not very likely that Lull was influenced by the later Scotist tradition in Germany, though, of course, everything is possible, including a visit by Lull to Regensburg. But it must be remembered that Honorius lived and wrote nearly a century before Lull, and it seems, on the whole, more feasible that the Scotist influence would have reached Lull from some centre of diffusion nearer home, rather than from Germany.

Now we have to come to the most startling aspect of the history of the *De divisione naturae* and its influence.

In the early years of the thirteenth century, a certain Amalric of Bena began to teach doctrines which he had drawn from the



'*Periphysion, id est, De Natura*' of John the Scot, so Cardinal Henry of Ostia says.<sup>157</sup> The 'Amalrician heresy' began to spread and seems to have had a fervently trinitarian and mystical character. It was condemned, and Amalric was expelled from the University of Paris, in which he had been a lecturer. He died in 1207, and a few years later some of his disciples were burned, and it was decreed that with them should be burned their books, amongst others the *De divisione naturae*.<sup>158</sup>

The attention which the heretics had drawn upon Scotus' work endangered its very survival, for in 1225 Pope Honorius III (not to be confused, of course, with the Honorius who wrote the *Clavis physicae*) sent an order to all bishops and archbishops in France that all copies of 'the book called *Periphysis*', complete or partial, were to be sought out and confiscated, and sent to Rome to be burned.<sup>159</sup> Similar orders were sent to the bishops and archbishops in England. The order was not completely obeyed, since some copies have survived, but the greater number must have disappeared.<sup>160</sup>

There is a rumour that this endeavour to exterminate the *De divisione naturae* arose, not only from the use of the book by the Amalricians, but also because it was a favourite book of the Albigenses, that mysterious sect which arose in the south of France in the twelfth century, apparently through the influence of an heretical sect of the Eastern Church, the Paulicians. As is well known, the Albigensian Crusades attempted the rather difficult task of completely exterminating a whole set of people, and the process was accompanied by the destruction of the books and papers of the sect, so that the little that we know of their religious beliefs and practices comes to us only through their enemies, from the interrogations of Albigensian heretics by the Inquisition. By 1225, when Honorius III issued his orders for the destruction of the *De divisione naturae*, the Albigensian Crusades were over though the heresy was not yet stamped out. In 1229 the Inquisition was established in Languedoc and continued the work by which these people and their records were to be blotted out from history.

The chronicler Albéric des Trois-Fontaines, when chronicling the events of the year 1225, quotes the order of Pope Honorius III against the book called 'Periphysis', and then goes on to make some interesting observations. He notes that 'Magister Hugo de Sancto Victore in libro Didascalicon' mentions that Johannes Scotus 'scripsit theologiam de decem categoriis in Deum'. He is referring to the phrase in Hugh's *Didascalicon* which describes Scotus as a theologian and as author of the work on 'the ten categories leading

to God'.<sup>161</sup> The *Didascalicon* is saturated with the influence of Scotus, and Trois-Fontaines appears to be citing it as a work by a very reputable theologian in which the book now condemned is treated with respect. Trois-Fontaines then goes on to repeat the legend, propagated by William of Malmesbury, that Scotus met his end as a kind of martyr in England. It seems therefore almost with regret that Trois-Fontaines records that a book which has been in circulation for 300 years has now met with condemnation, though this condemnation was necessary 'because of the Albigenses, new and false theologians' who have not properly understood the book and have perverted its meaning to confirm their heresies.<sup>162</sup>

With this may be compared the remark by Cardinal Nicolas of Cusa, in his *Apologia doctae ignorantiae*. He has just been speaking of the Amalrician heresy, and he observes 'that it happens to men of small intelligence that they fall into error, through not having scrutinized the heights by means of the *docta ignorantia*. . . . This is why all the saints rightly give the warning that such weak eyes must be withdrawn from the intellectual light. They should never be shown such books as those of Saint Denys . . . or the *Perifiseos* of John the Scot.'<sup>163</sup> Though Cusanus does not mention the Albigenses as amongst the weak-eyed ones, he might also be thinking of them. And his remark makes more explicit a tendency, already apparent in Trois-Fontaines, to detach the *Perifiseon* itself, and its author, from the condemnation which has rightly fallen on heretical uses of the work.

All this gives rise to a strong desire to know more concerning the kind of uses which these various heretics made of the *De divisione naturae*. The Albigensian 'Perfectus' seems to have been one who had undergone some special and curious type of ascetic and contemplative discipline. Is it possible that this included some form of the Scotist meditation on the Names of God? And when we read that story of how four of the 'Perfect' escaped by night from the last refuge of the sect in besieged Montségur, bearing with them sacred books in their flight towards hiding-places in the Pyrenees,<sup>164</sup> may we fancy that amongst the books thus travelling Spain-wards in strange company there were copies of the *De divisione naturae*?

The fall of Montségur in 1244 was the last act of the Albigensian tragedy which had darkened and drenched with blood the romance lands of the south. In 1244 Lull was a child of nine. The world of the southern romance culture was Lull's world. Before his conversion to serious ways, it was as a kind of troubadour-poet that Ramon exercised his talents. In his novels of *Felix* and *Blanquerna*

we meet with jongleurs and knights, but also with that attractive figure, the Lullian hermit, a solitary who dwells in forests and is found under a tree, contemplating Bonitas, *et alia*, in nature and cancelling out vices with virtues. As I pointed out in my earlier article, the Lullian hermit of the romances is doing the Art.<sup>165</sup> Is it possible that the copy of the *De divisione naturae* which he might have had by him was one which had escaped destruction in the Albigensian wars? In other words, did the influence of the banned book still linger in the south, so that Lull might have come across it in his own world?

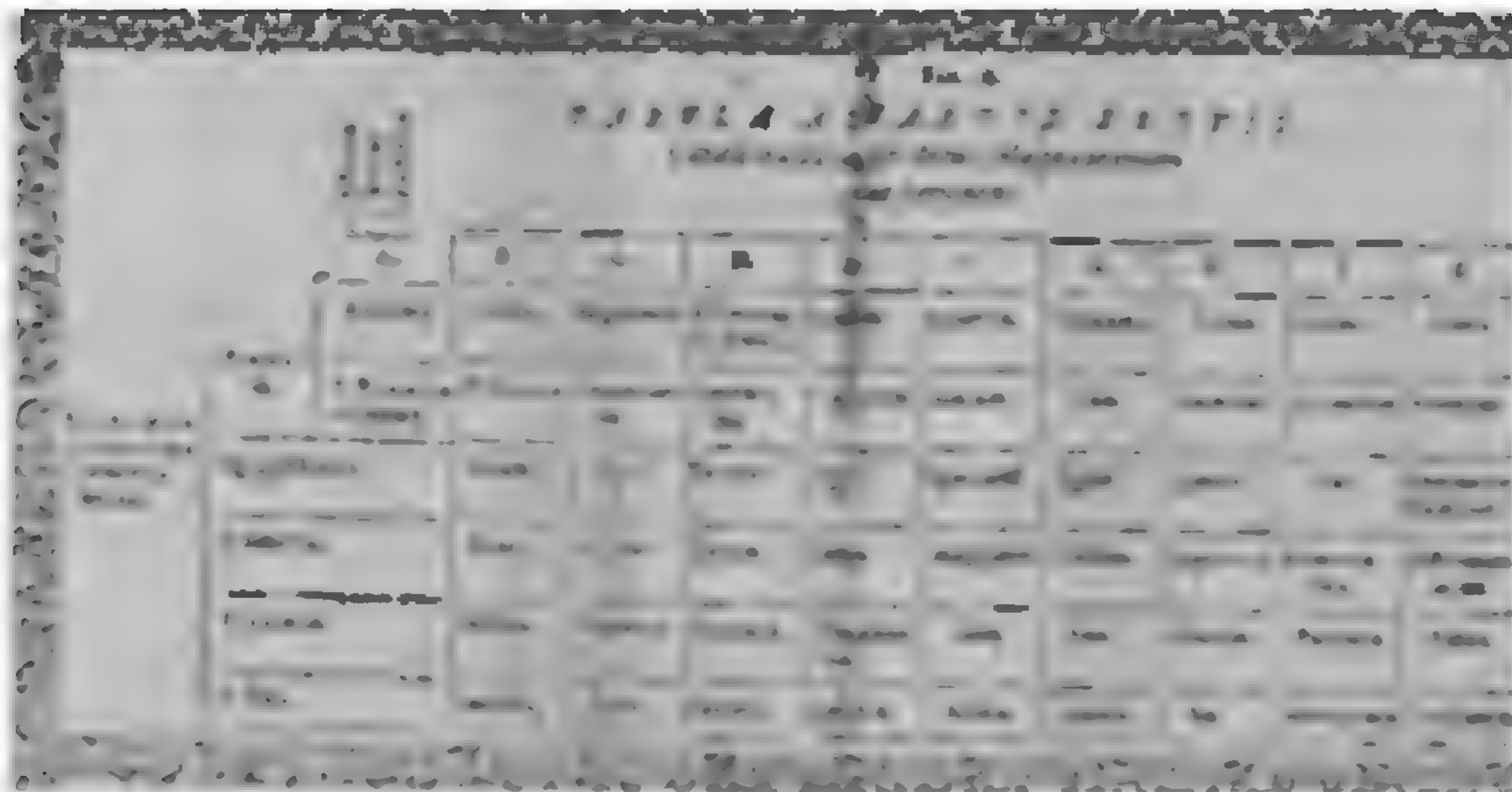
The young Prince James of Mallorca with whom Lull was brought up at the Mallorcan court, married in 1275 a lady called Esclarmonde, sister to a Count of Foix.<sup>166</sup> This lady belonged to the same family and bore the same name as the most famous of the aristocratic female 'Perfects', Esclarmonde, Princess of Foix,<sup>167</sup> whose castle of Montségur was the last stronghold of the Albigenses. Since, therefore, there were contacts between the Mallorcan court and the courts of the French Languedoc, formerly hot-beds of the heresy, it is possible that in that southern court of Mallorca the influence of the sacred book still lingered, so that even in his troubadour days, as a courtier, Lull might have met with it. Moreover, the town of Montpellier, beyond the Pyrenees, belonged to the rulers of Mallorca, and Lull often visited it, and, through his interest in medicine, might have talked with the doctors there, or studied their books. The Cathars were noted for their practice of some curious form of medicine.<sup>168</sup> Was this based, like Lull's medicine, on an astrological adaptation of Scotism, and did the influence of it linger in Montpellier?

All these may be unanswerable questions, leading nowhere save into curious speculations. But it would account for the mixture of the ingenious and the profound with the ingenuous and the popular in Lull's mind and art if the Scotist philosophy reached him through courtly or popular traditions in his own southern environment. I am not, of course, suggesting that Lull was a Cathar heretic, but that the Cathar heretics, or secretly unconvinced converts from the heresy, might have been yet another class of people — besides Arabs and Jews — to whom the Art was addressed, setting out to prove to them from their own book, and perhaps by methods similar to theirs, that their heresy was false and the Catholic religion true.

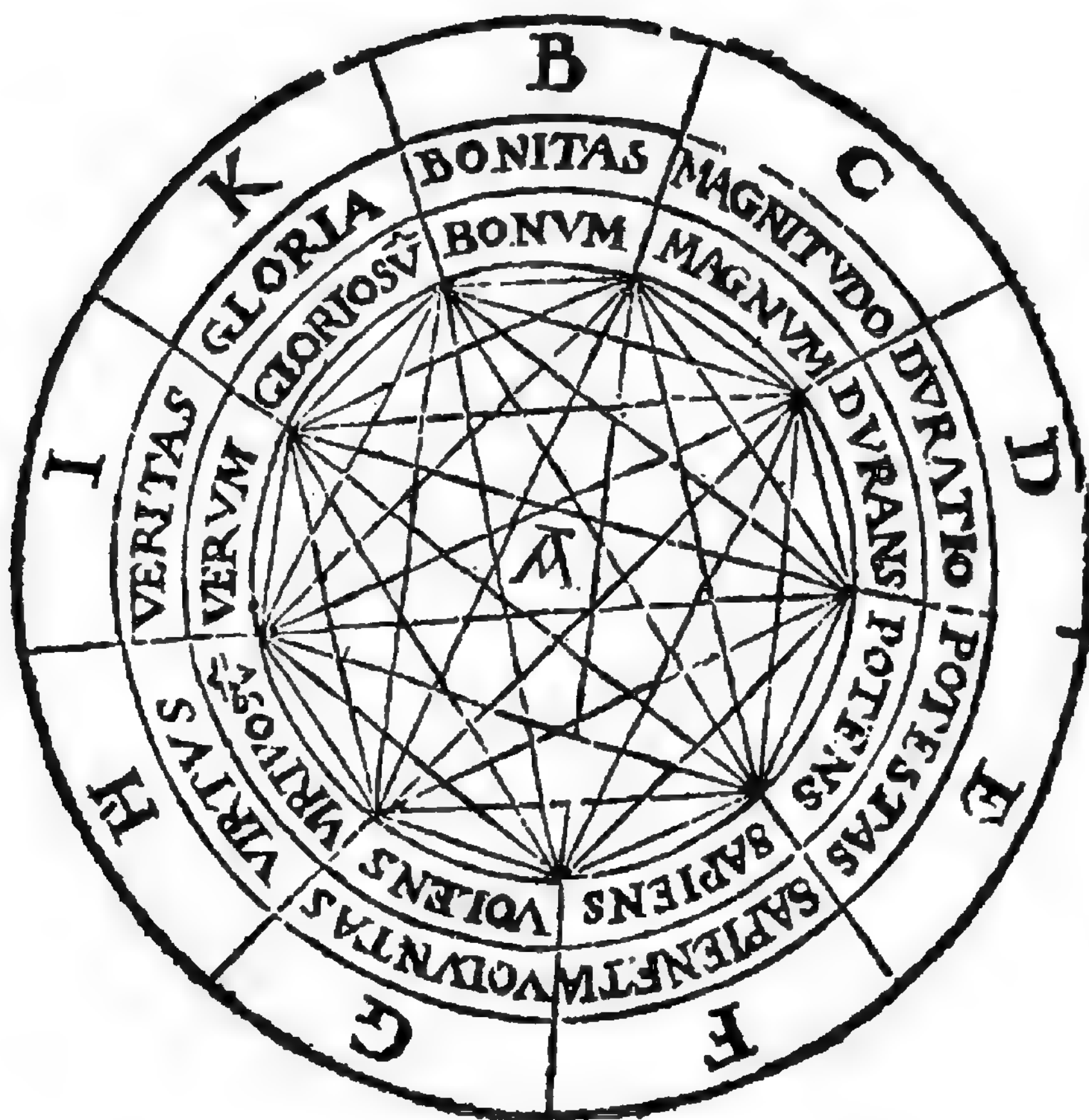
It is strange that Lull should not have known that he was basing his Art on a banned book. Cusanus' line of thought on the subject might be an indication of how Lull, too, might have thought of it.



1 FIGURES FOR THE *ARS BREVIS* OF  
RAMON LULL, FROM RAMON LULL,  
*OPERA*, STRASBURG, 1617

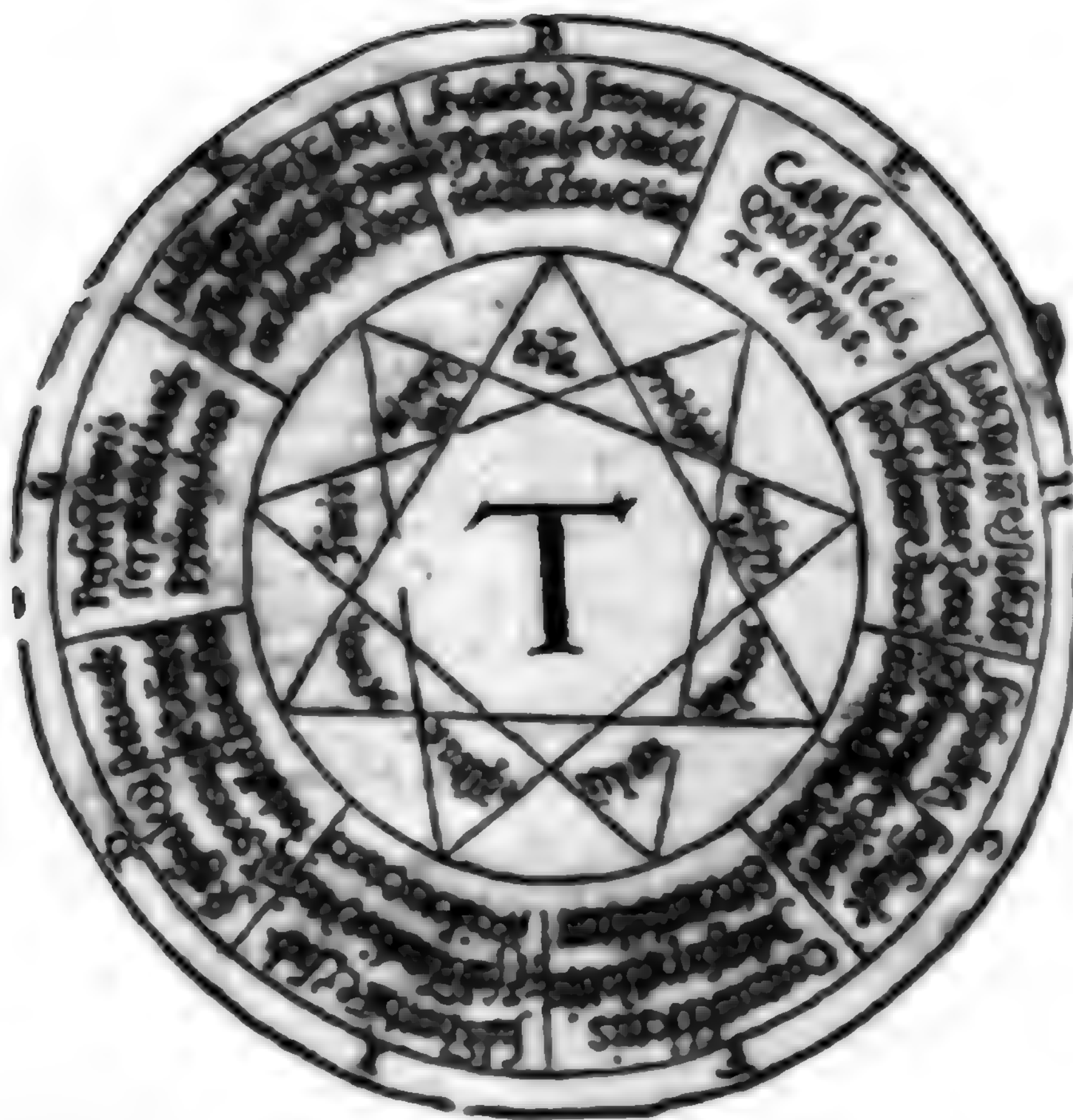


(a) Alphabet of the Art (pp. 10-12, 19, 31, 37)



(b) First Figure (pp. 10-11)

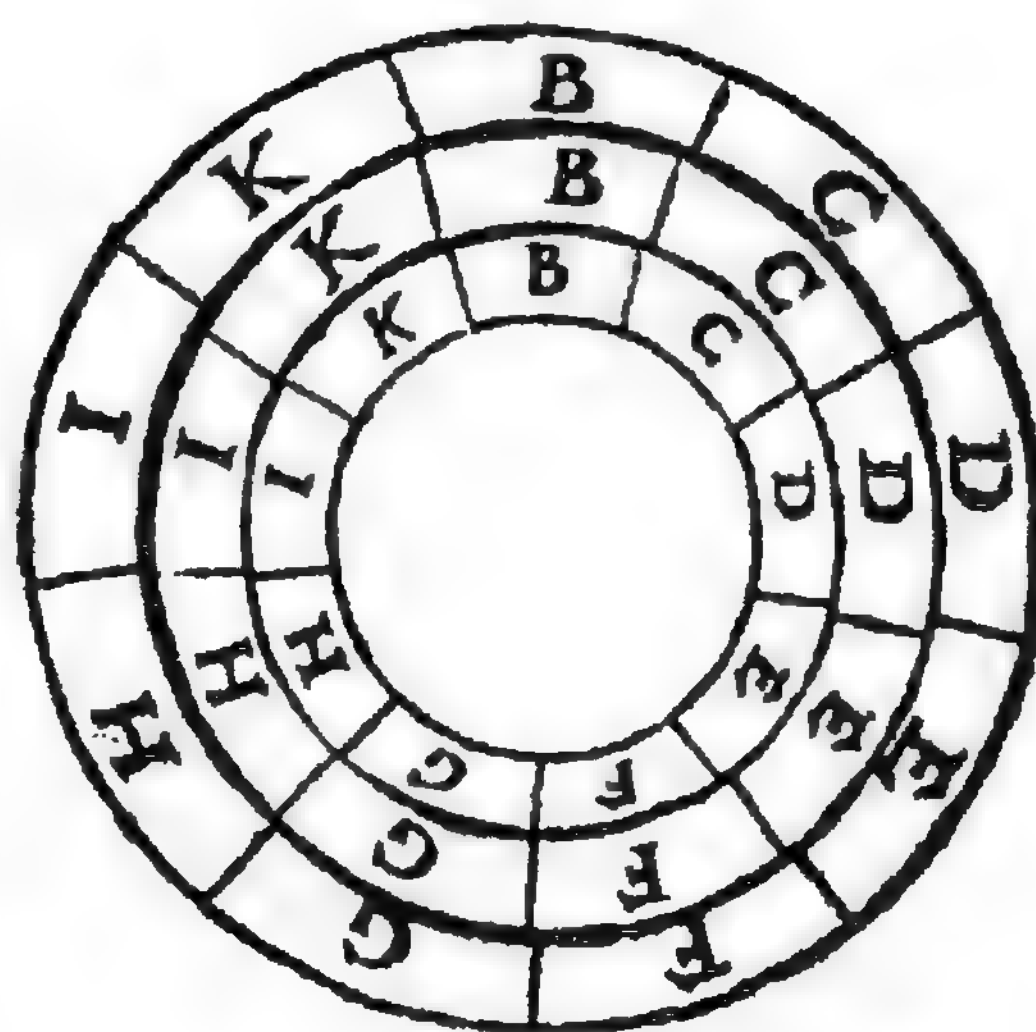
1 (continued)



(c) Second Figure (pp. 10-11, 31)

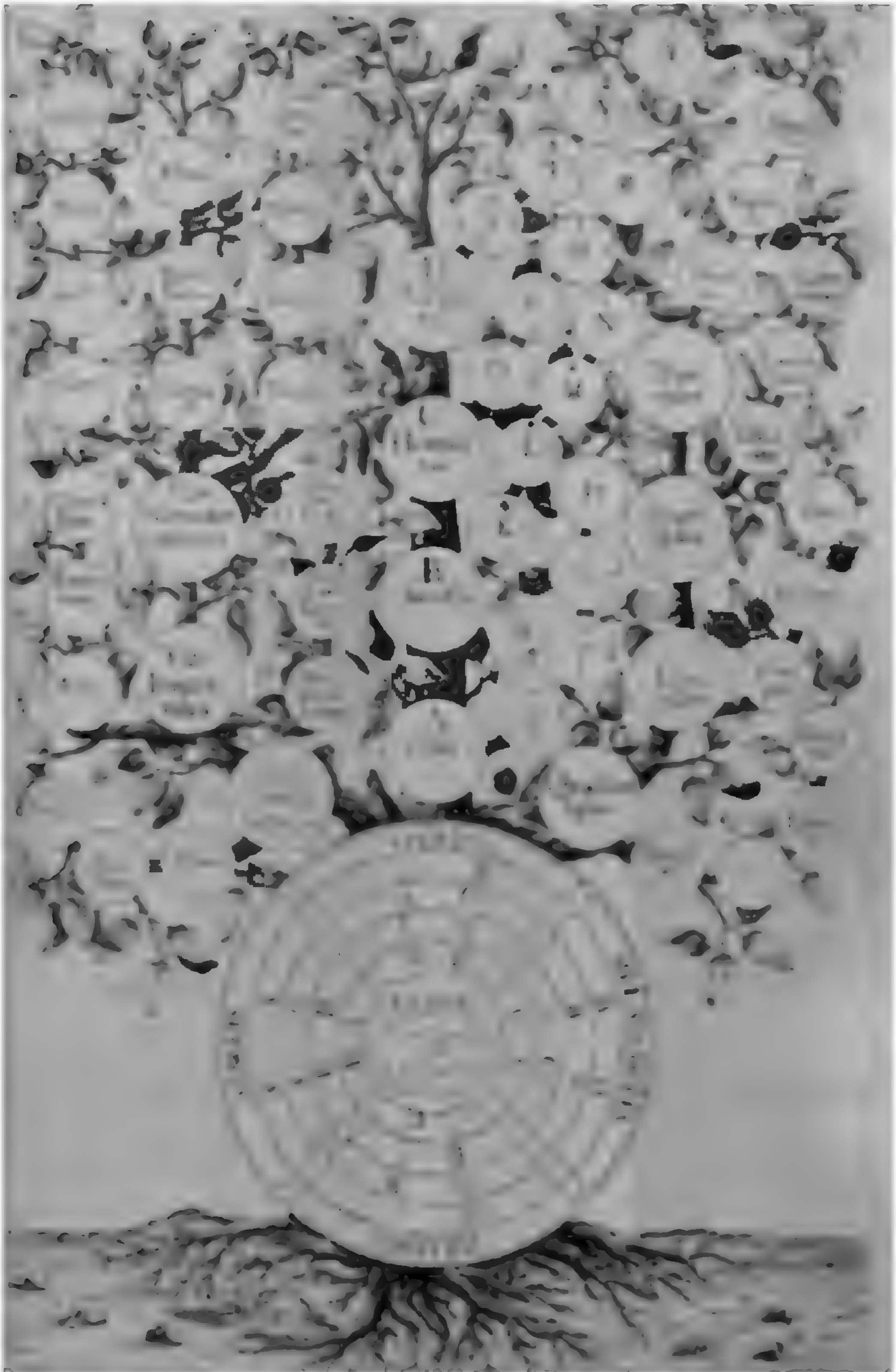
BC	CD	DE	EF	FG	CH	HI	IK
ED	CE	DF	EG	FH	GI	HK	
BE	CF	DG	EH	FI	GK		
BF	CG	DH	EI	FK			
BG	CH	DI	EK				
BH	CI	DK					
BI	CK						
BK							

(d) Third Figure (pp. 10-11)



(e) Fourth Figure (the two inner circles revolve) (pp. 10-11, 18)

2 TREE DIAGRAM ILLUSTRATING RAMON  
LULL'S *LIBER PRINCIPIORUM*  
*MEDICINAE*, FROM RAMON LULL, *OPERA*,  
MAINZ, 1721-42, VOL. I (pp. 27, 38, 52)





3 FIGURES FOR THE *ARS DEMONSTRATIVA*,  
FROM RAMON LULL, *OPERA*, MAINZ,  
1721-42, VOL. III

DE SECUNDA FIGURA  
IPSIUS  
V.

[illegible]

(a) Combinations of Virtues and Vices (pp. 29, 37, 39, 246n, 147)

Ignis	Aër	Aqua	Terra
Ignis	Aër	Aqua	Terra
Ignis	Aër	Aqua	
Aër	Aqua	Terra	
Ignis	Aër		
Aqua	Terra		
Ignis			
Terra			

*Secunda Figura Elementaris.*

(b) Second Elemental Figure (pp. 29, 37, 39, 48)

## PRIMA FIGURA ELEMENTALIS.

Figura Ignis

Ignis	Aër	Aqua	Terra
Aër	Ignis	Terra	Aqua
Aqua	Terra	Ignis	Aër
Terra	Aqua	Aër	Ignis

Figura Aëris

Aër	Ignis	Aqua	Terra
Ignis	Aër	Terra	Aqua
Aqua	Terra	Aër	Ignis
Terra	Aqua	Ignis	Aër

Figura Aquæ

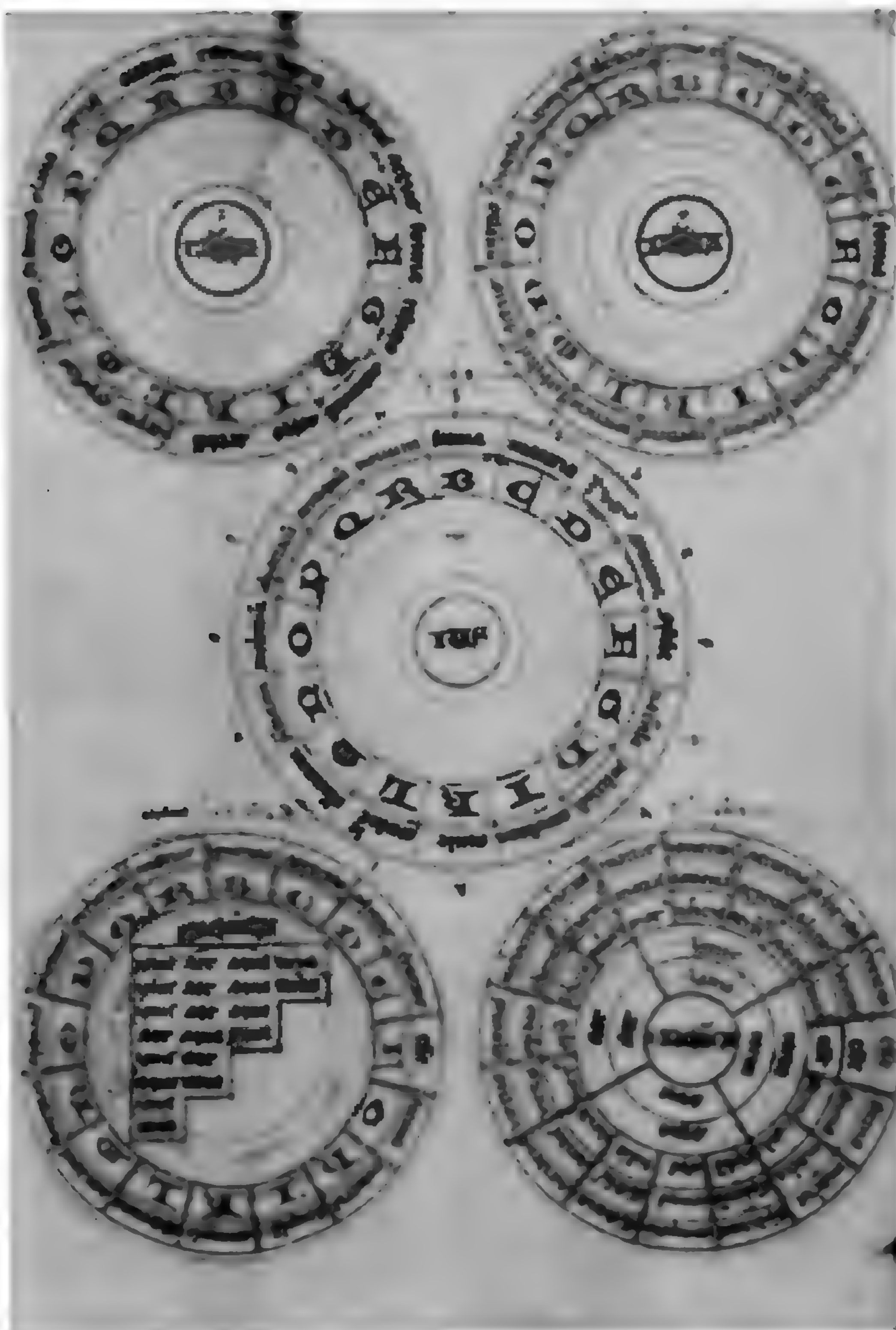
Aqua	Terra	Aër	Ignis
Terra	Aqua	Ignis	Aër
Aër	Ignis	Aqua	Terra
Ignis	Aër	Terra	Aqua

Figura Terræ

Terra	Aqua	Aër	Ignis
Aqua	Terra	Ignis	Aër
Aër	Ignis	Terra	Aqua
Ignis	Aër	Aqua	Terra

(c) First Elemental Figure (pp. 29, 39, 48)

4 WHEELS OF THEOLOGY, PHILOSOPHY,  
LAW, AND THE ELEMENTS: FIGURES FOR  
RAMON LULL'S *ARS DEMONSTRATIVA*  
FROM A THIRTEENTH-CENTURY (OR  
EARLY FOURTEENTH-CENTURY)  
MANUSCRIPT (PARIS, B.N. LAT. 16113, f. 72<sup>r</sup>)  
(p. 38)





5 THE HERMIT AND THE SQUIRE, ILLUS-  
TRATIONS FROM MANUSCRIPTS OF  
RAMON LULL'S *L'ORDRE DE CHEVALERIE*  
(pp. 39, 228 n. 96)



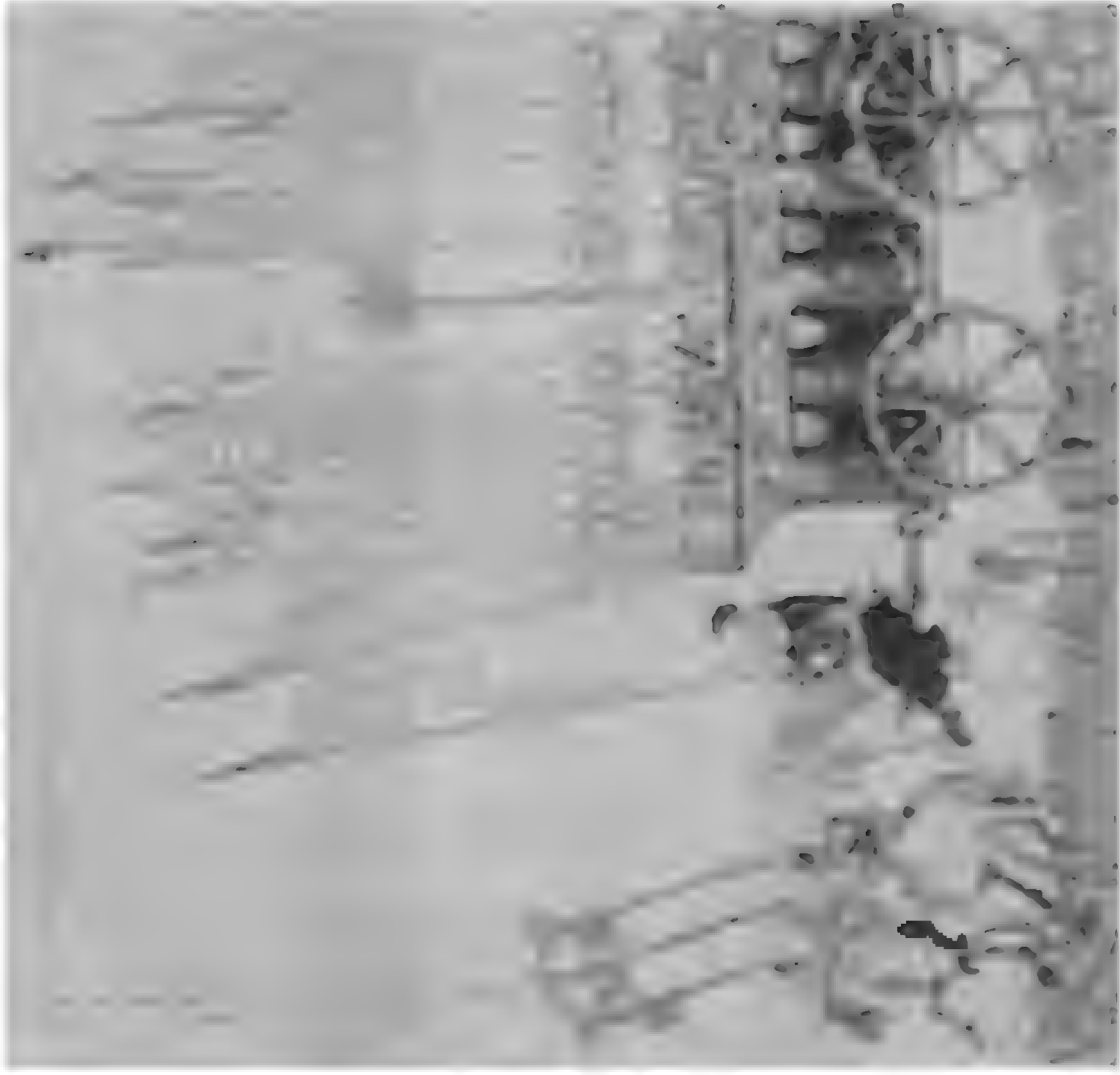
(a) From Paris, Bibl. Nat., fr. 1973, French, fifteenth century



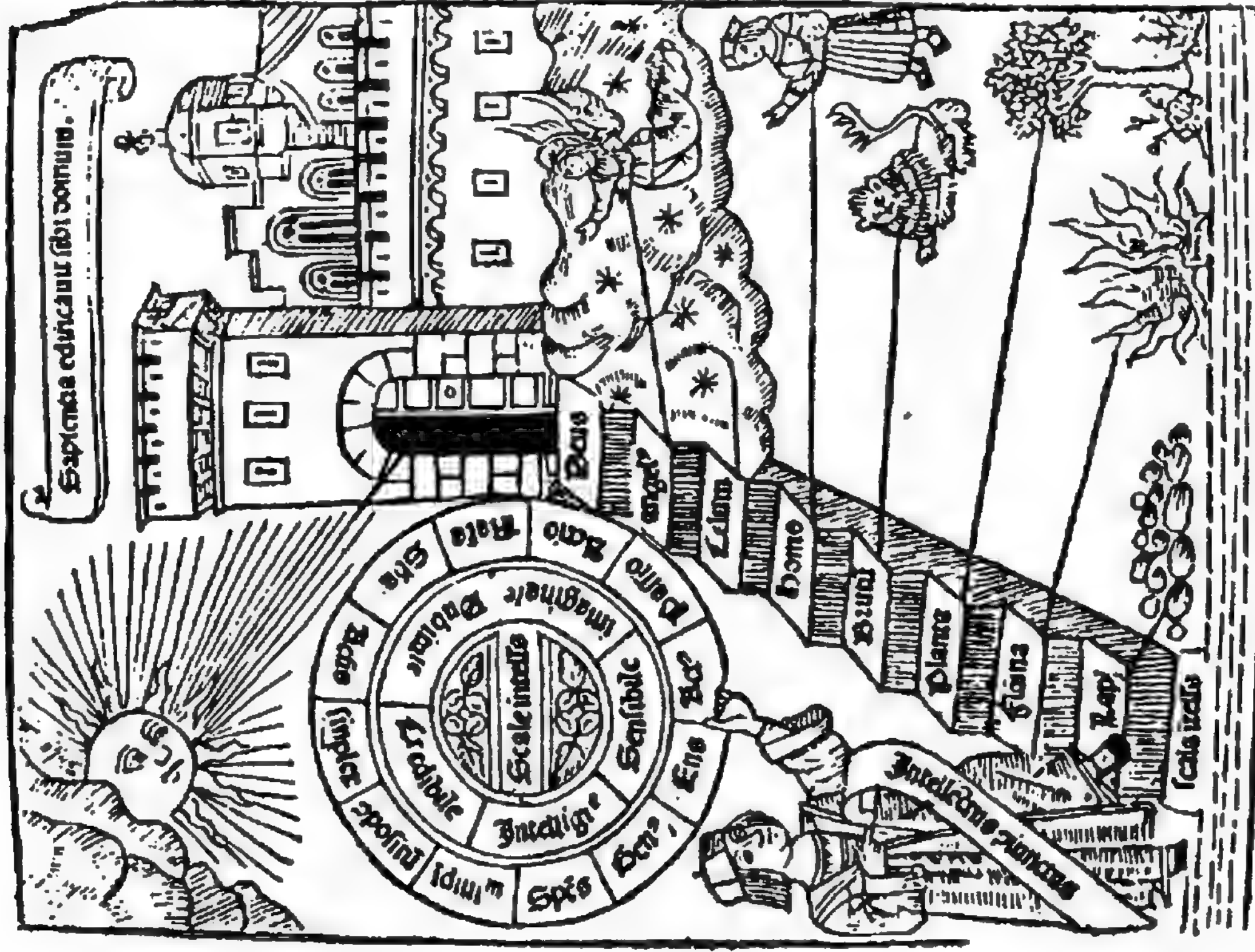
(b) From British Museum, Royal MS. 14 E II, Flemish, fifteenth century



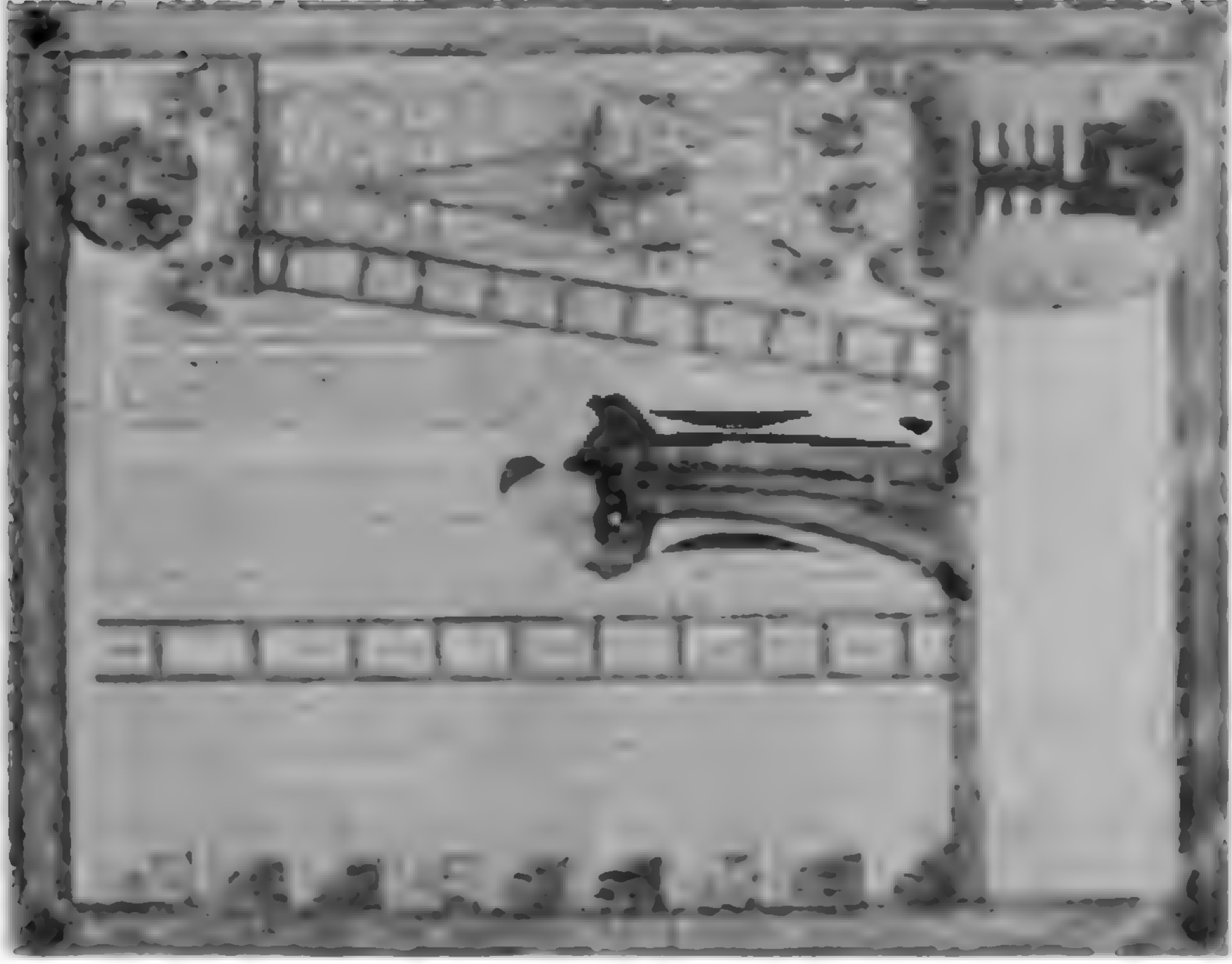
6(a) Lull's vision; Lull teaching the Art (pp. 32, 39).  
From the Karlsruhe Miniatures



6(b) Lull on horseback with the principles of the Art  
(B to K as *absoluta* and *relata*, see Pl. 1a) dressed  
as knights (pp. 40, 53). From the Karlsruhe  
Miniatures



7(a) The Ladder of Ascent and Descent,  
from Ramon Lull, *Liber de ascensu et  
descensu intellectus*, Valencia, 1512 (p. 41)

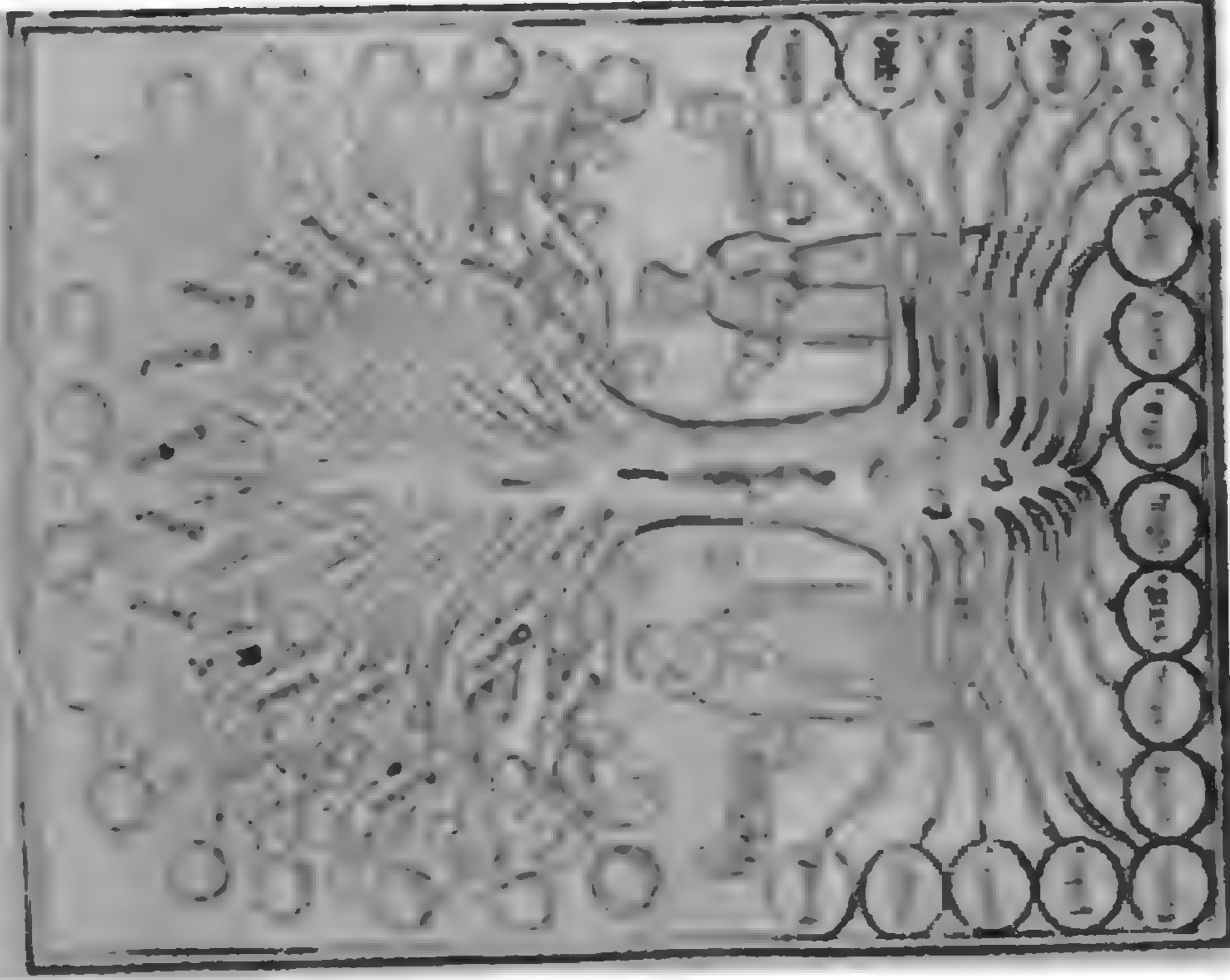


7(b) Lull with ladders, from the Karlsruhe  
Miniatures (p. 41)



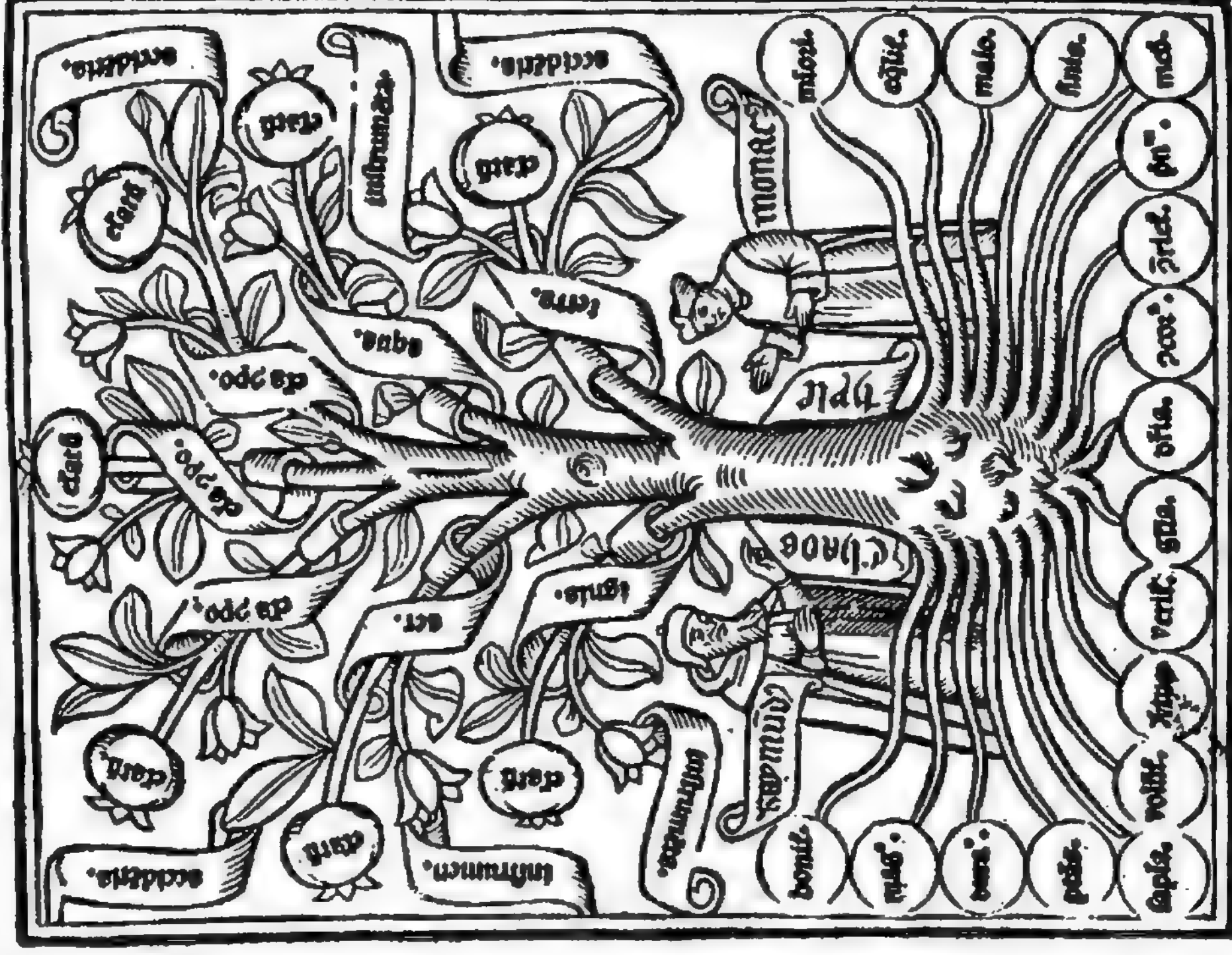
8 TREE DIAGRAMS FROM RAMON LULL, ARBOR SCIENTIAE,  
LYONS, 1515 (PP. 94-5, 91)

Arbor scientie. 50.ii.



(a) Tree of all the Sciences

Arbor elementalís.



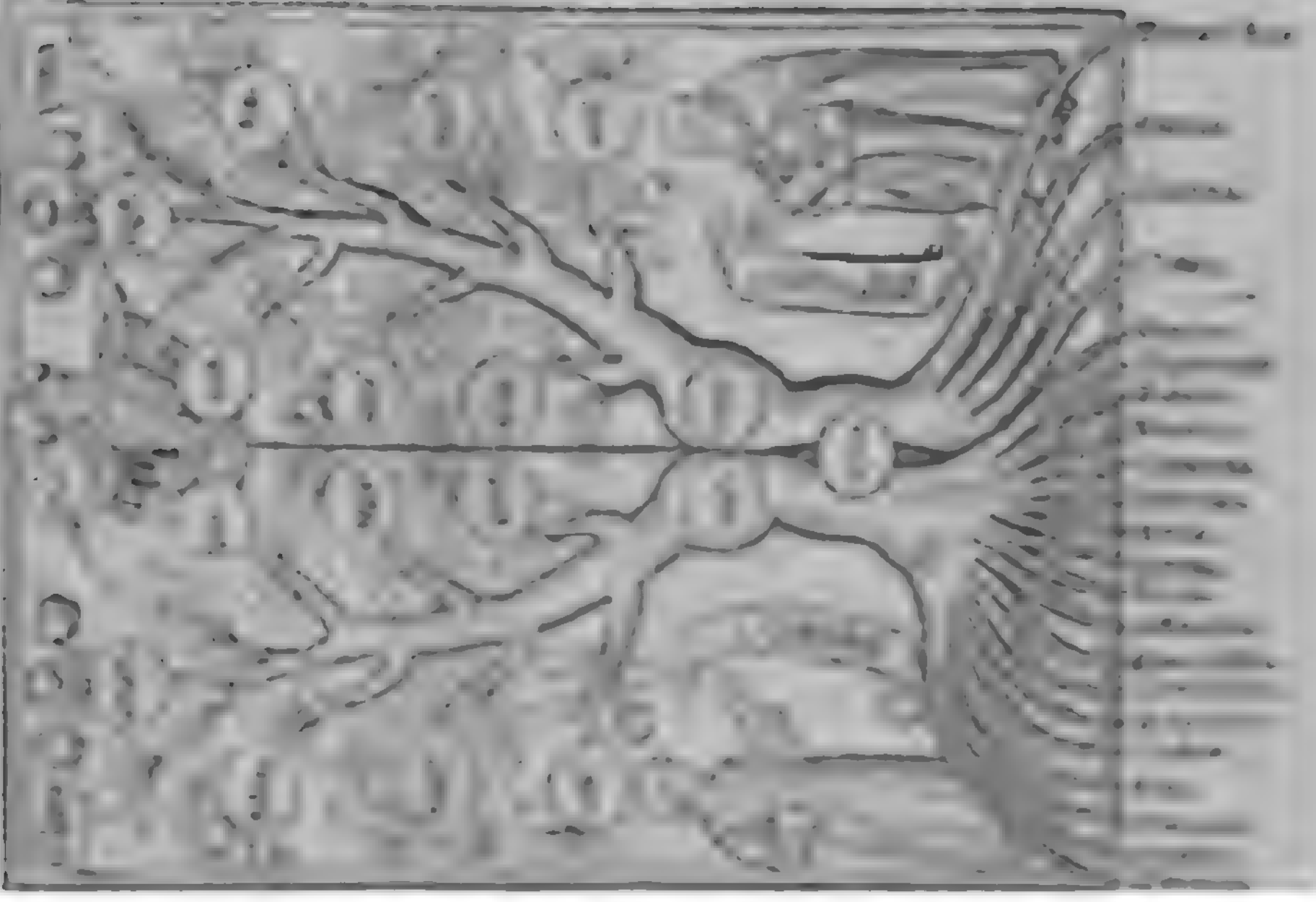
(b) Elemental Tree

**Arbor vegetalis.**



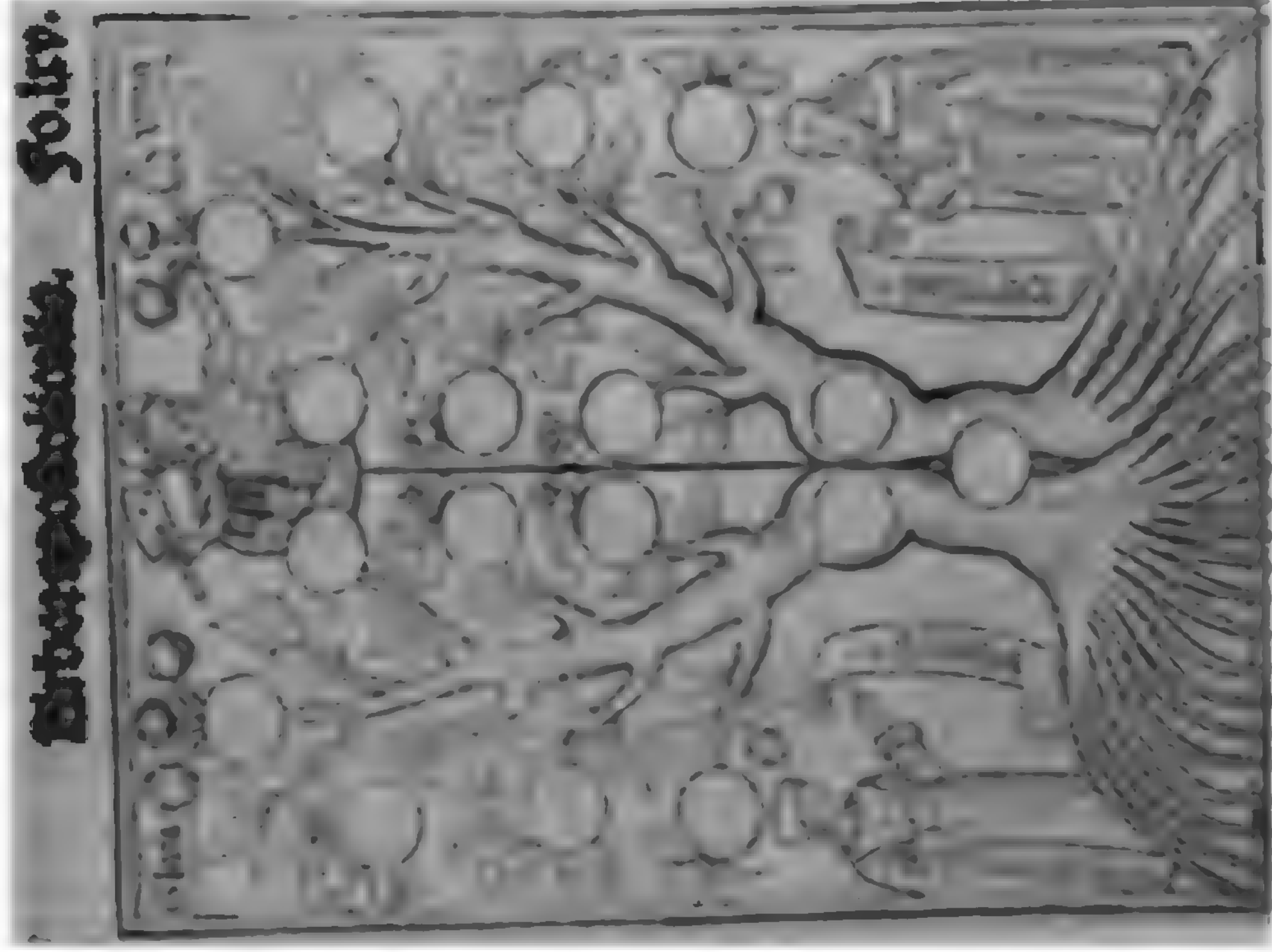
(c) Vegetable Tree

**Arbor moralis. sive.**

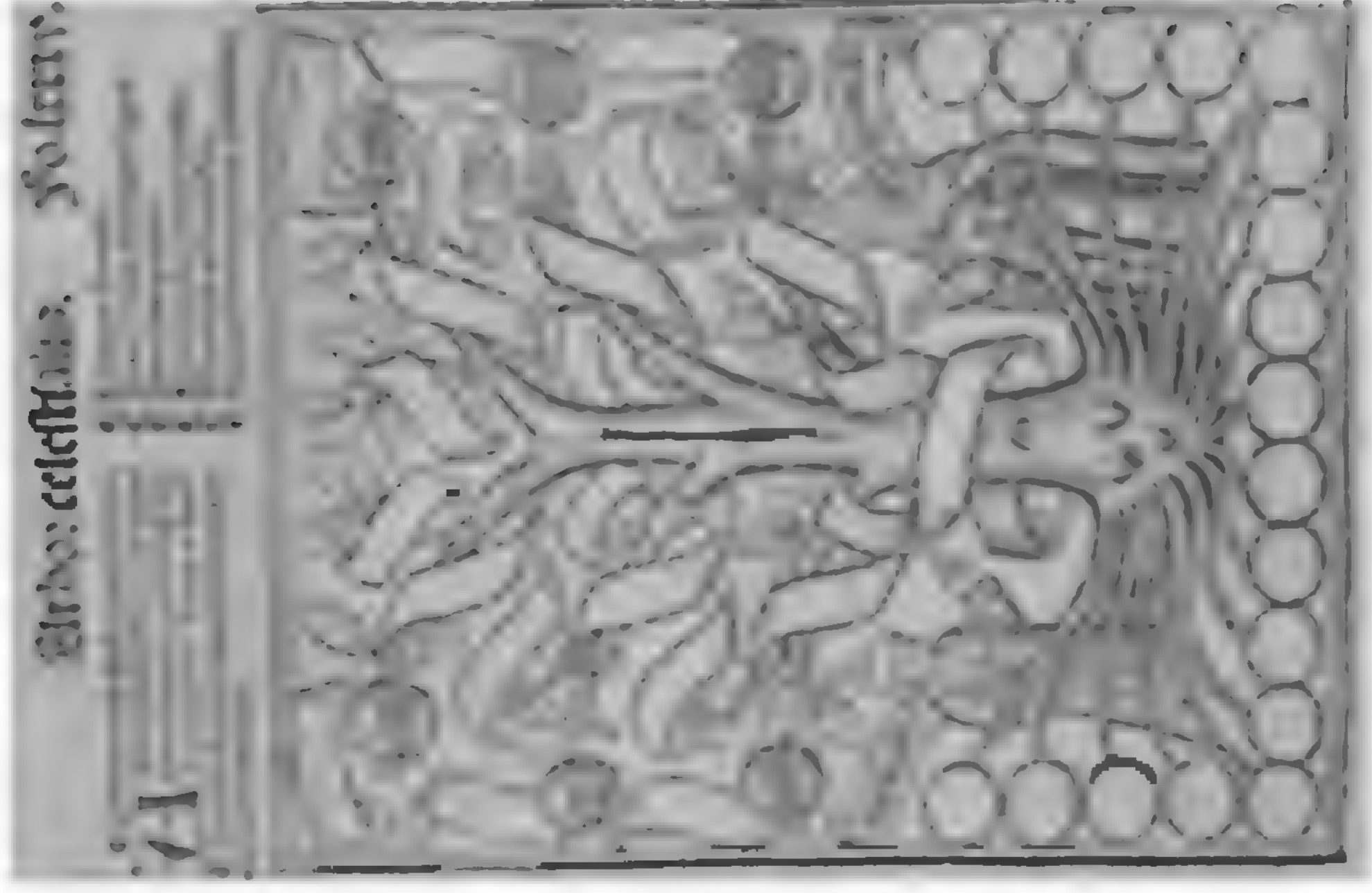


(d) Moral Tree

9 TREE DIAGRAMS FROM RAMON LULL, *ARBOR SCIENTIAE*,  
LYONS, 1515 (pp. 44-5)



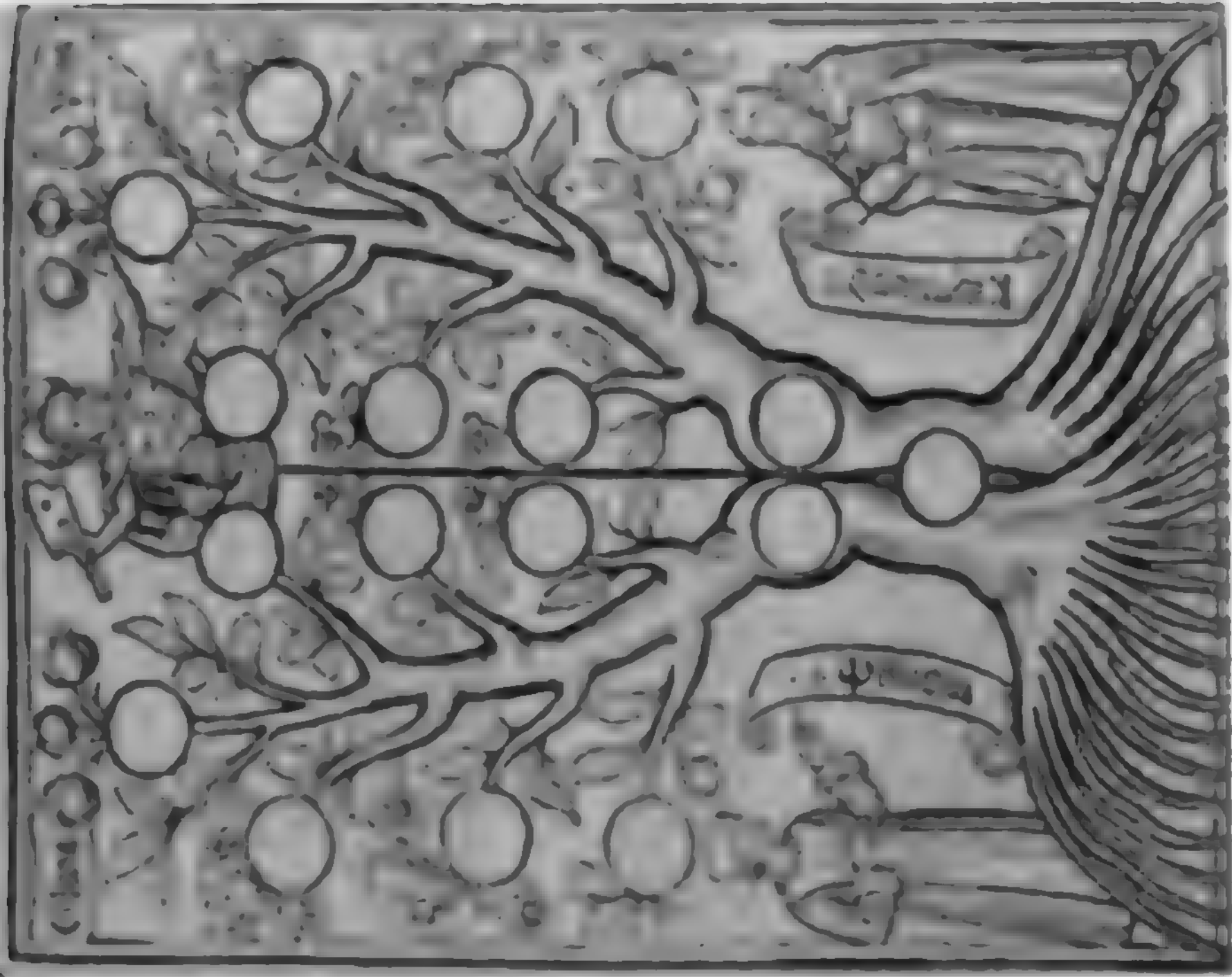
(a) Apostolic Tree



(b) Celestial Tree

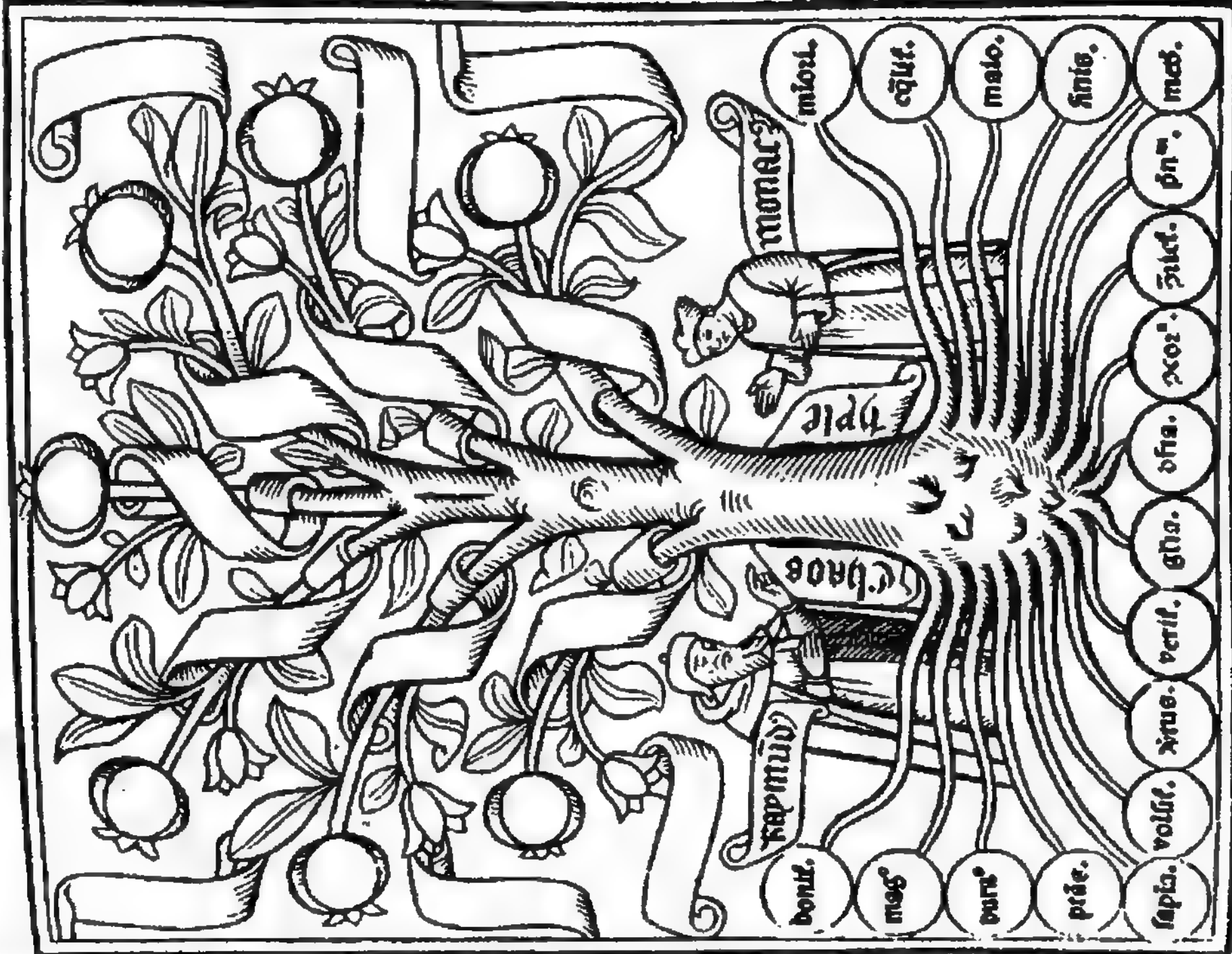


Arbor christianalis.



(c) Tree of Jesus Christ

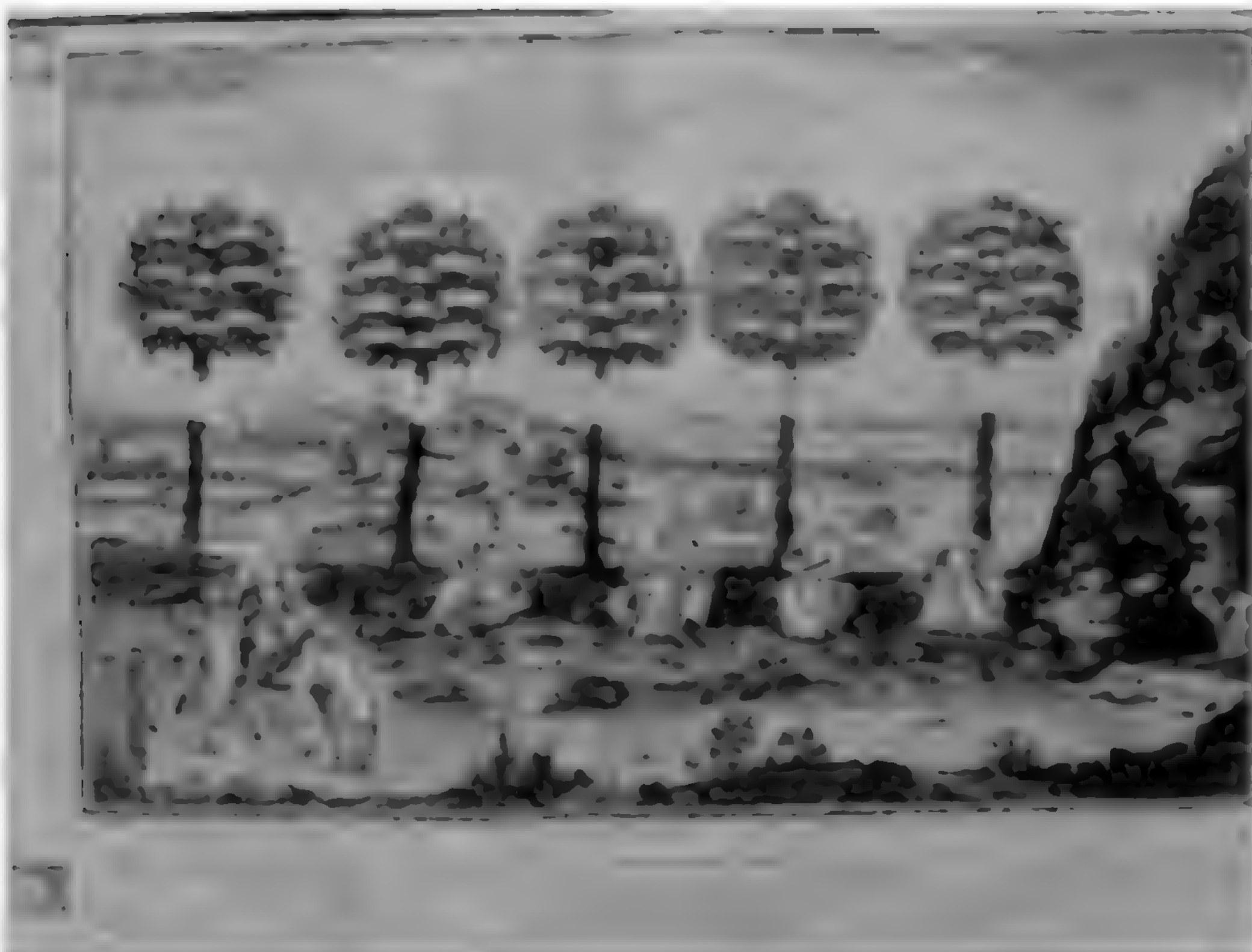
Arbor diuinalis. Fo. cxviii.



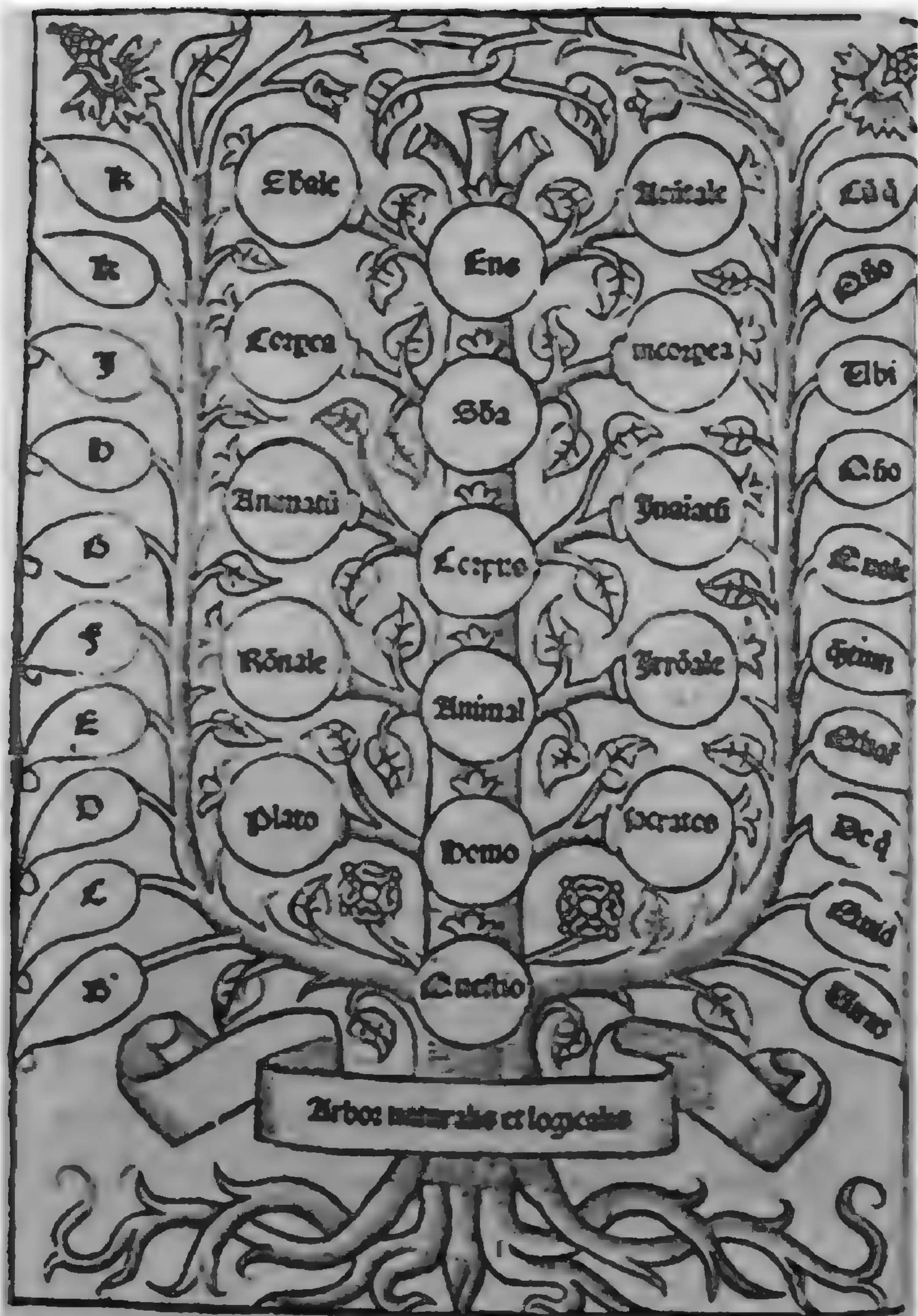
(d) Tree of the Trinity



10(a) The Incarnation, title-page engraving from Ramon Lull, *Opera*, Mainz, 1721-42 (p. 51)



10(b) Intelligentia and the Wise Men under the Trees of Virtues and Vices, engraved illustration to Ramon Lull's *Liber de gentili et de tribus sapientibus*, Mainz edition, vol. II (p. 53)



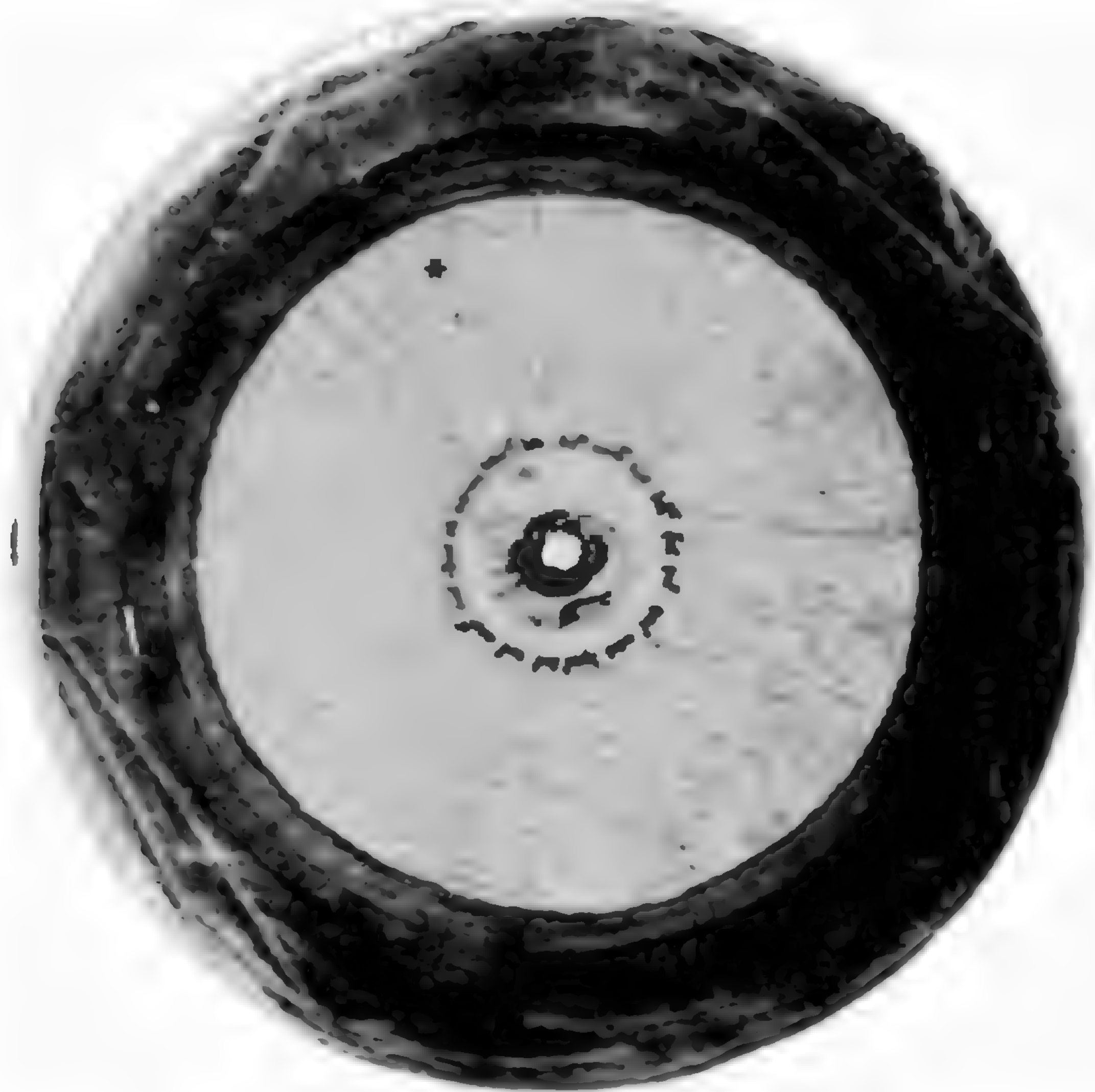
11(a) Tree diagram from Ramon Lull, *De nova logica*, Valencia, 1512  
(p. 58)



11 (*continued*)



11(b) Thomas le Myésier presenting his compendia of Lull's works to the Queen of France, from the Karlsruhe Miniatures (p. 75)

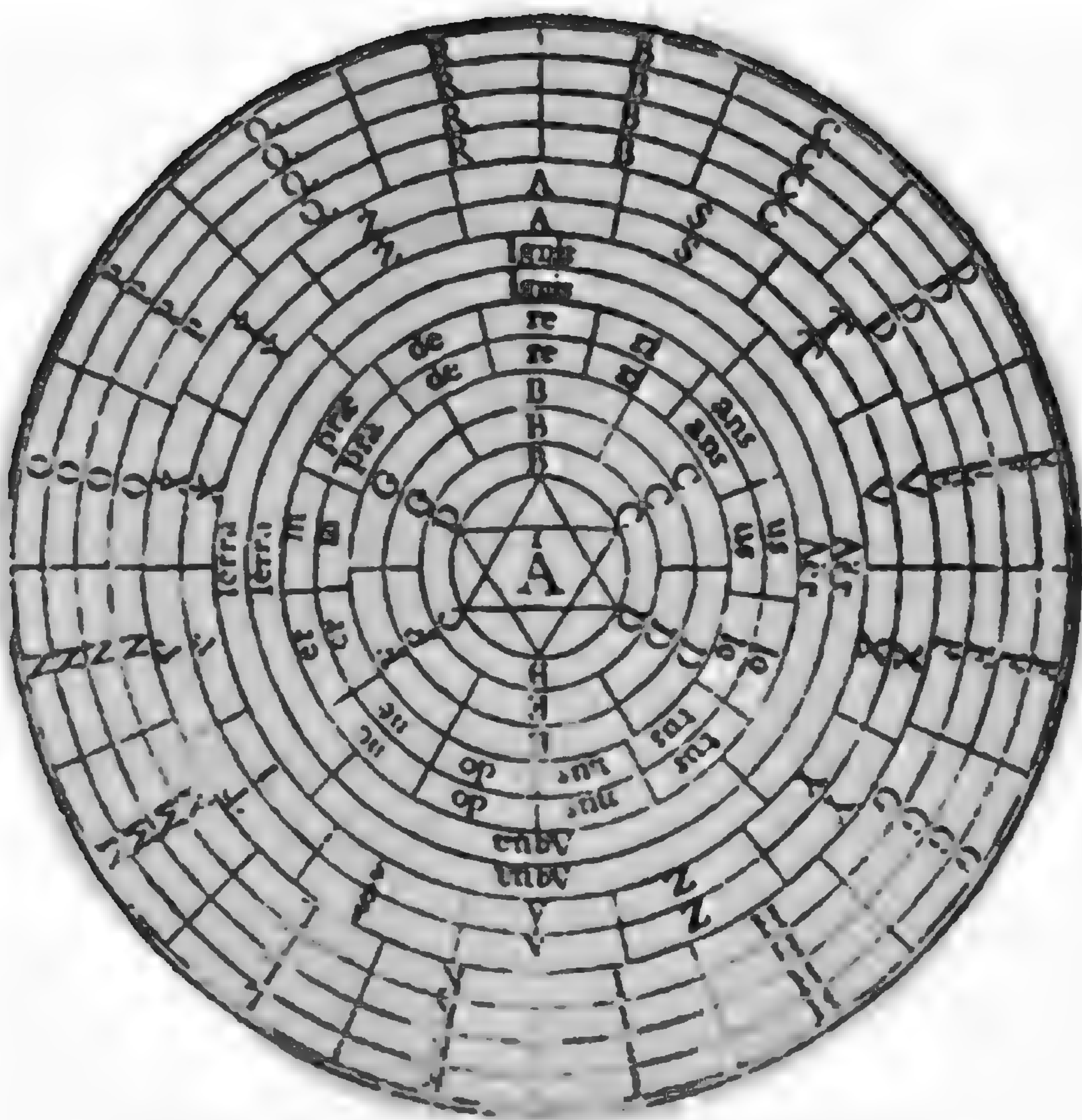


12 Cosmological setting of the Lullian Art, diagram from Thomas le Myésier's *Electorium Remundi*, Paris, B.N. lat. 15450, f. 90<sup>v</sup>  
(for a description of this diagram see p. 76)



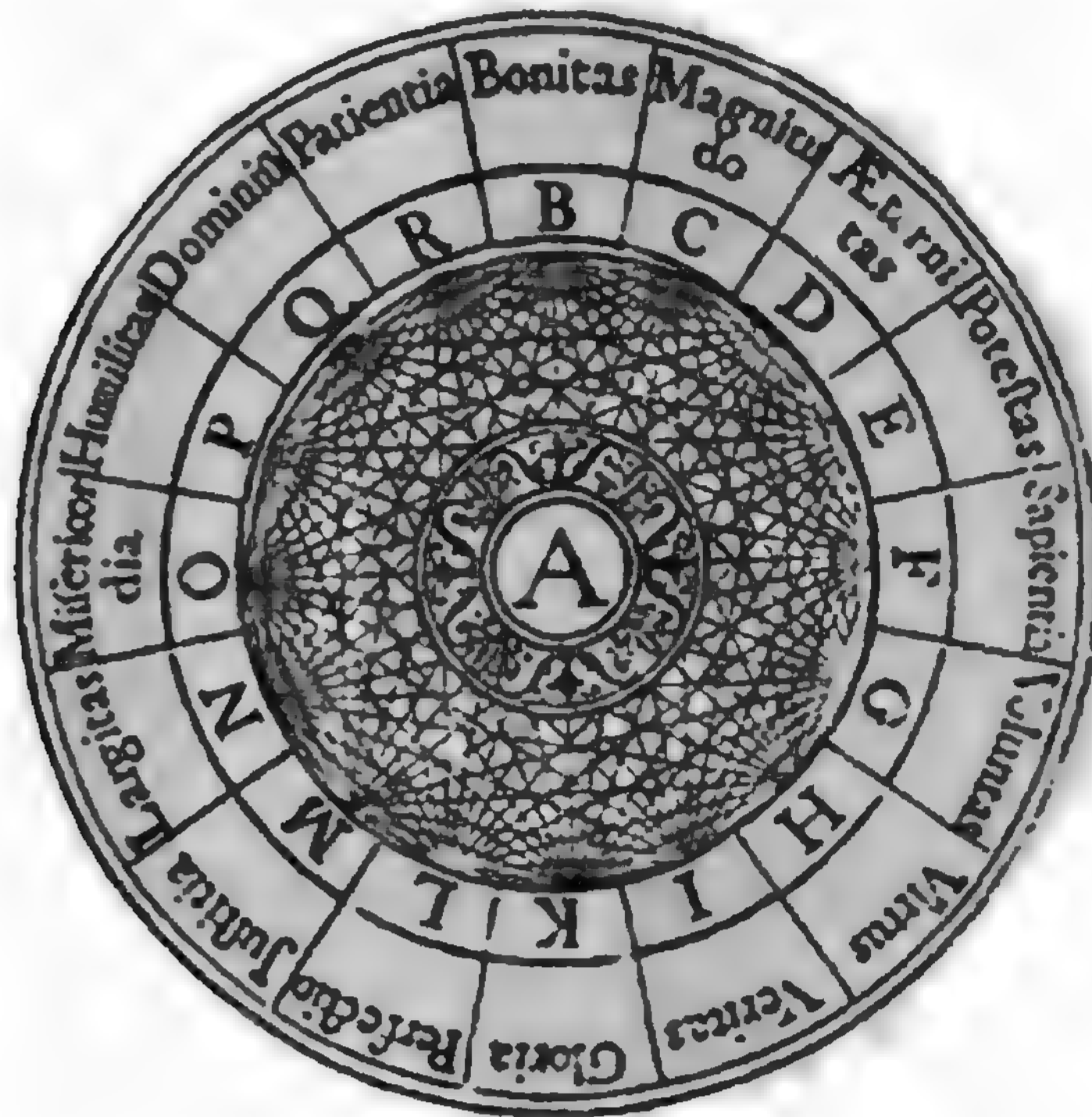
13(a) The Triumph of the Faith through the Lullian Art, engraving  
from Lull's *Opera*, Mainz edition (p. 77)



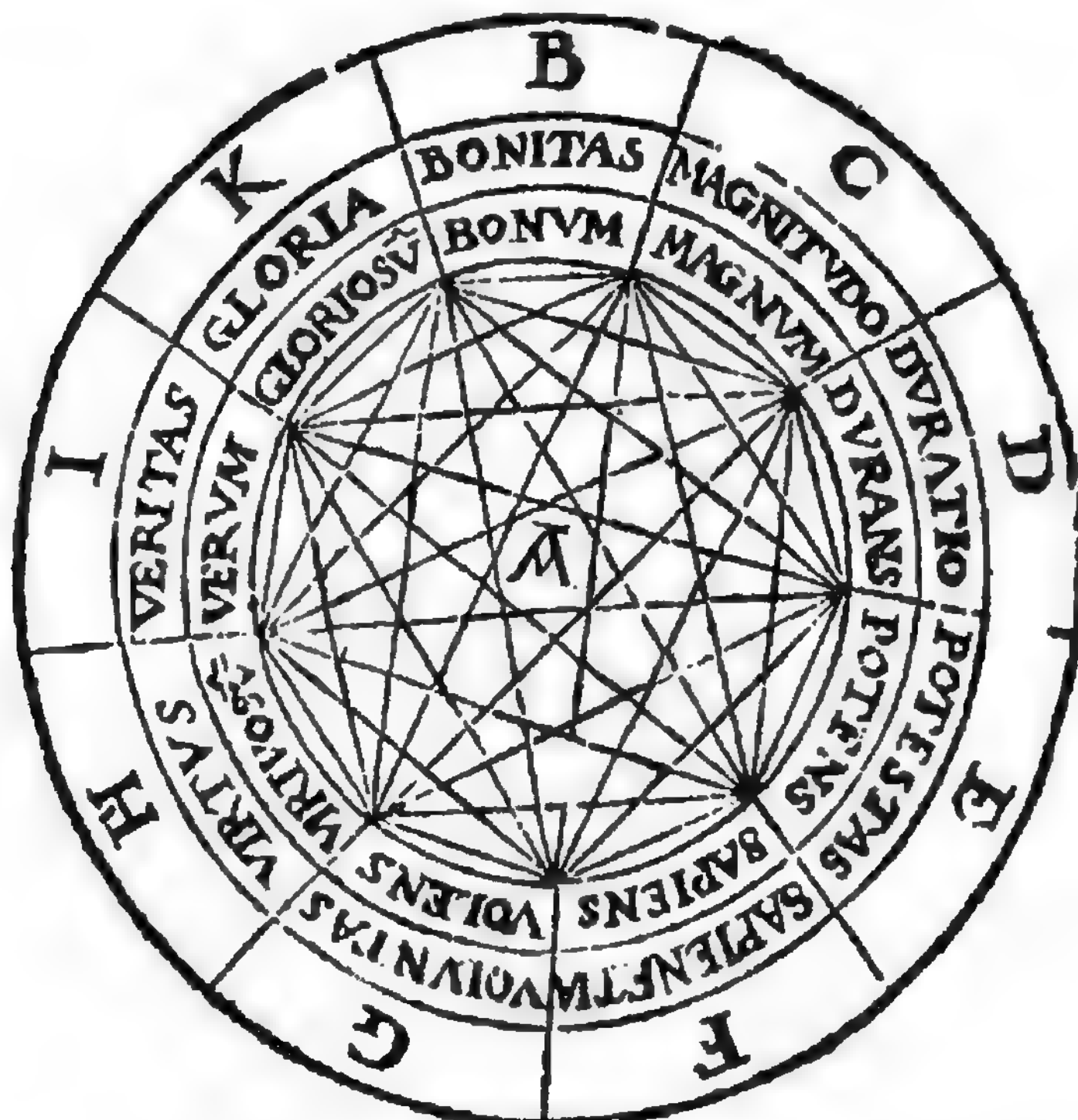


13(b) 'Figura Universalis' of the *Ars demonstrativa*, from Lull's *Opera*,  
Mainz edition, vol. III (p. 77)

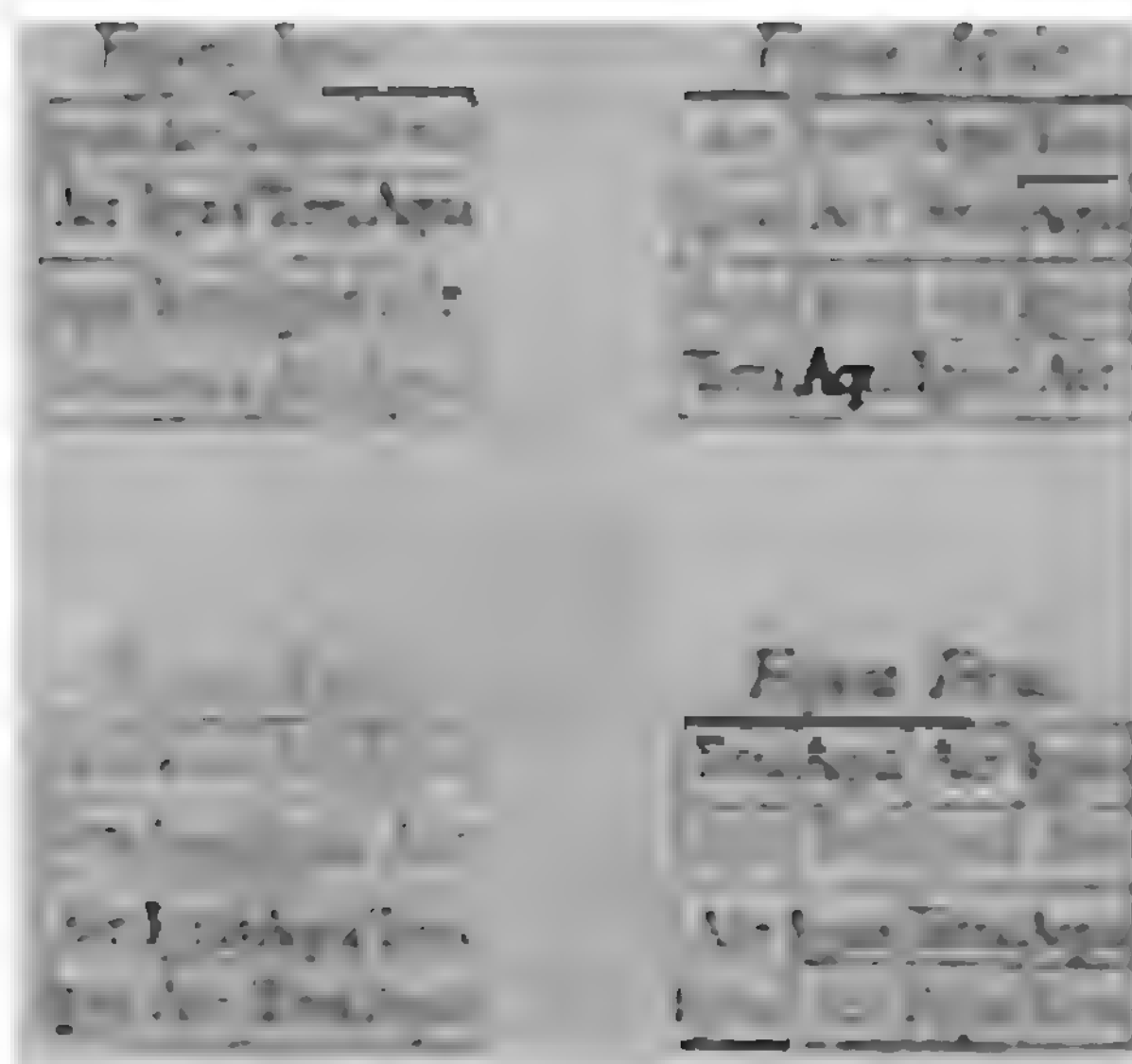
14 FIGURES FROM THE ARTS OF RAMON LULL



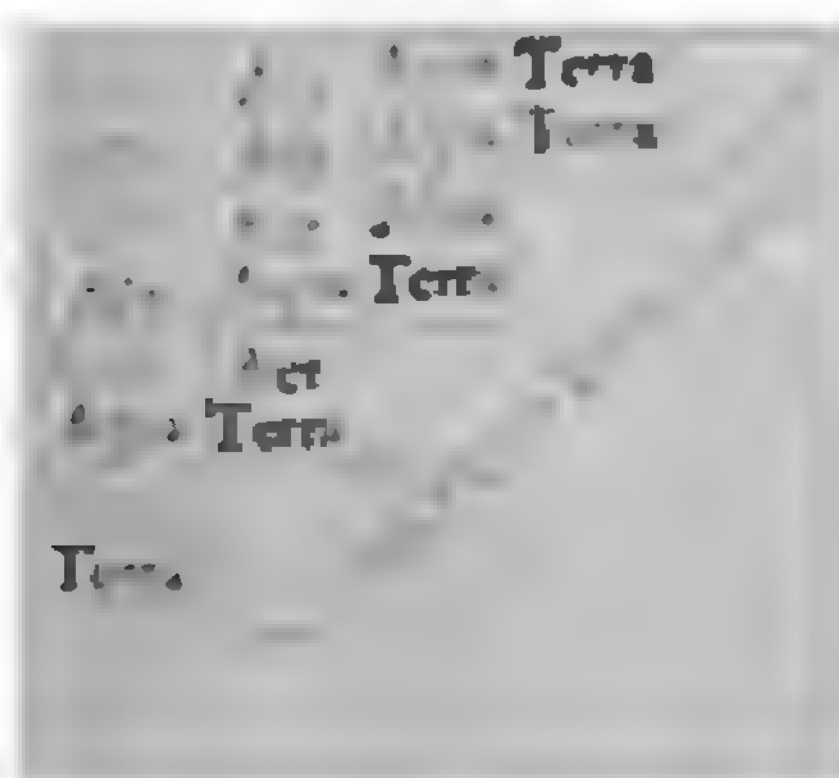
(a) 'A' Figure from the *Ars compendiosa inveniendi veritatem* (pp. 79, 96, 104, 105)



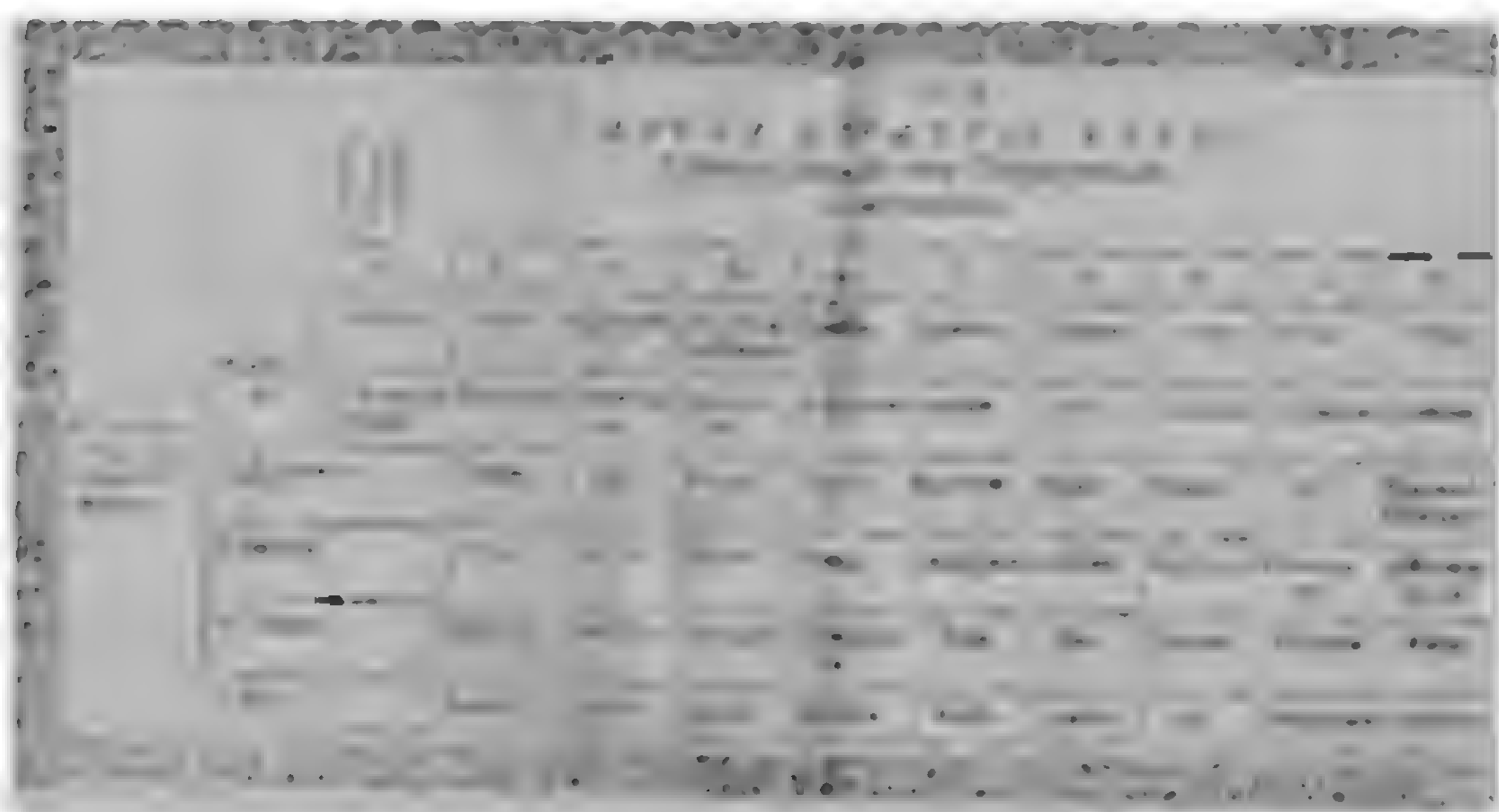
(b) 'A' Figure from the *Ars brevis* (pp. 78, 104, 105)



(c) First Elemental Figure from the *Ars demonstrativa* (p. 78)



(d) Second Elemental Figure from the *Ars demonstrativa* (pp. 78, 96)



(e) Alphabet from the *Ars brevis* (pp. 79, 91, 246 n. 147)



15 SCHEMATA ILLUSTRATING THE SCOTIST  
PHILOSOPHY, FROM HONORIUS  
AUGUSTODUNENSIS, *CLAVIS PHYSICAE*,  
PARIS, BIBL. NAT., LAT. 6734, TWELFTH  
CENTURY



**(a) The Four Divisions of Nature**  
(p. 90)

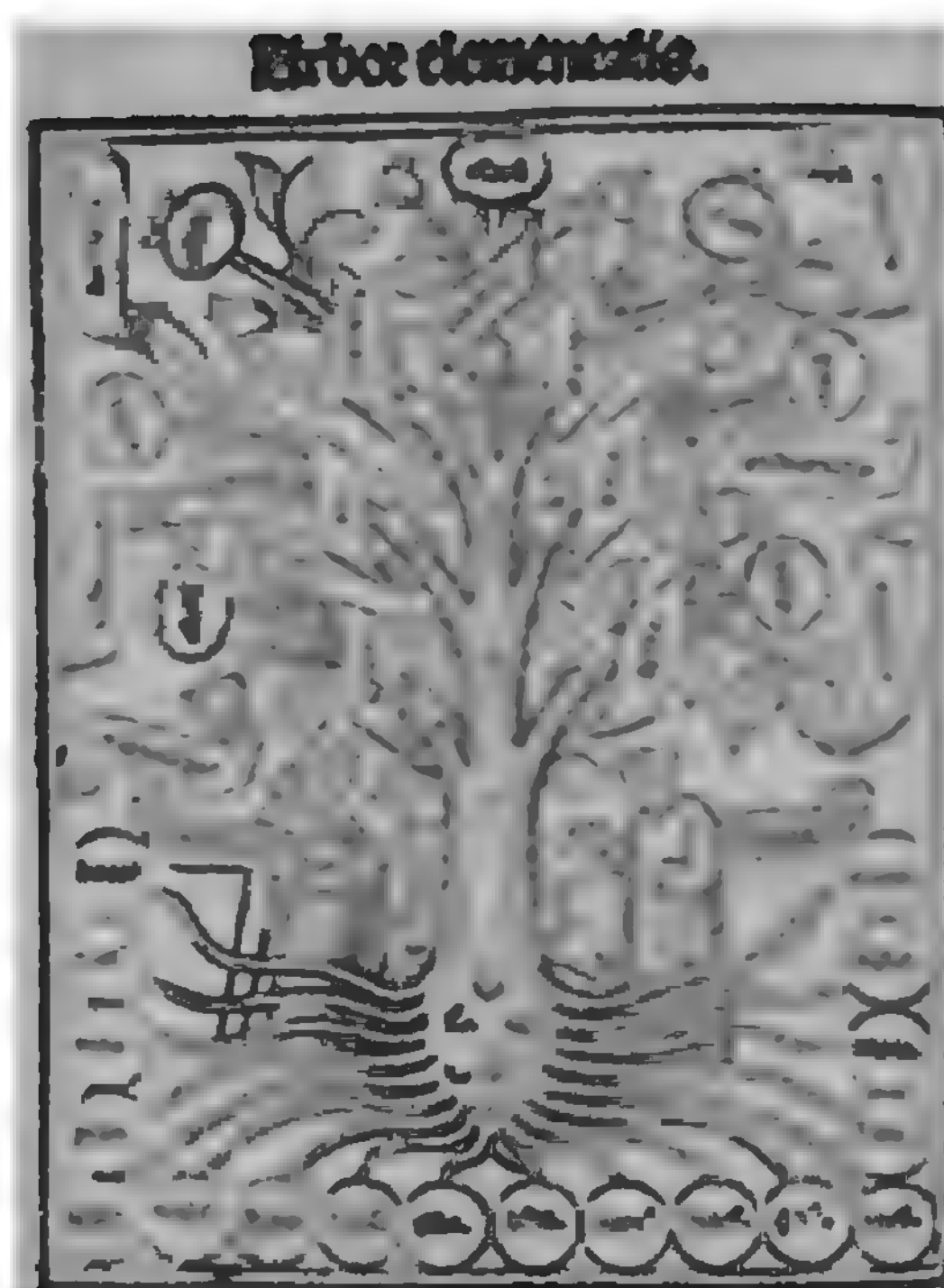


**(b) The Scale of Being (p. 91)**



16 Miniature illustrating the Scotist Four Divisions of Nature, from  
Honorius Augustodunensis, *Clavis physicae*, Paris, Bibl. Nat., lat. 6734,  
twelfth century (pp. 4-5, 91-4, 120)

17(a) 'Arbor Elementalís',  
from Ramon Lull, *Arbor  
scientiae*, ed. Lyons, 1515  
(pp. 99, 120)



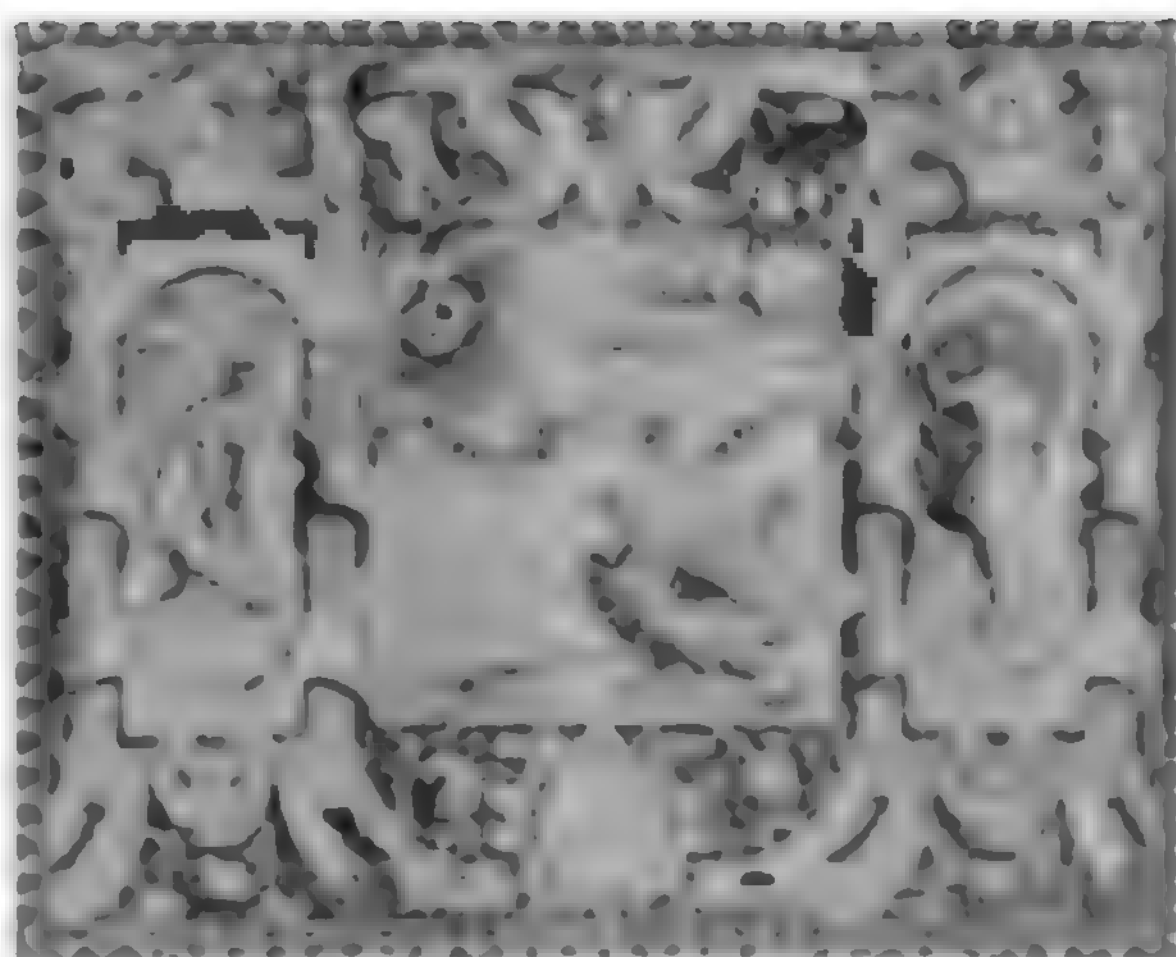
17(b) Diagram from a pseudo-  
Lullian alchemical treatise,  
from a fifteenth-century  
manuscript; Bollingen  
Foundation, New York  
(pp. 120, 248)







18(a) Butterfly and Flame,  
from Camillo Camilli,  
*Imprese illustri*, 1586  
(pp. 189, 208)



18(b) Eagle and Sun, from  
G. Ruscelli, *Le imprese  
illustri*, 1560 (p. 187)



18(c) Martyrdom of  
Profane Love, from  
O. Vaenius, *Amorum  
emblemata*, 1608  
(pp. 188-9, 207, 269 n. 107)

18 (*continued*)



18(d) Martyrdom of Sacred Love,  
from O. Vaenius, *Amoris divini*  
*emblemata*, 1615 (p. 188)



18(e) Divine Love raising the Soul,  
from Vaenius, *Amoris divini*  
*emblemata* (p. 189)



19(a) Divine Love and the Soul  
shooting, from Vaenius, *Amoris  
divini emblemata* (p. 189)



19(b) Profane Love shooting, from  
Vaenius, *Amorum emblemata*  
(p. 188)





19(c) The Wounded Lover, from Vaenius, *Amorum emblemata*  
(pp. 189, 198, 206)



19(d) Divine Love wounding the Heart, from Harvey, *School of the Heart*,  
after van Haeften, 1635 (p. 190)



19(e) Divine Love inflaming the Soul, from Vacnius, *Amoris divini emblemata* (p. 189)

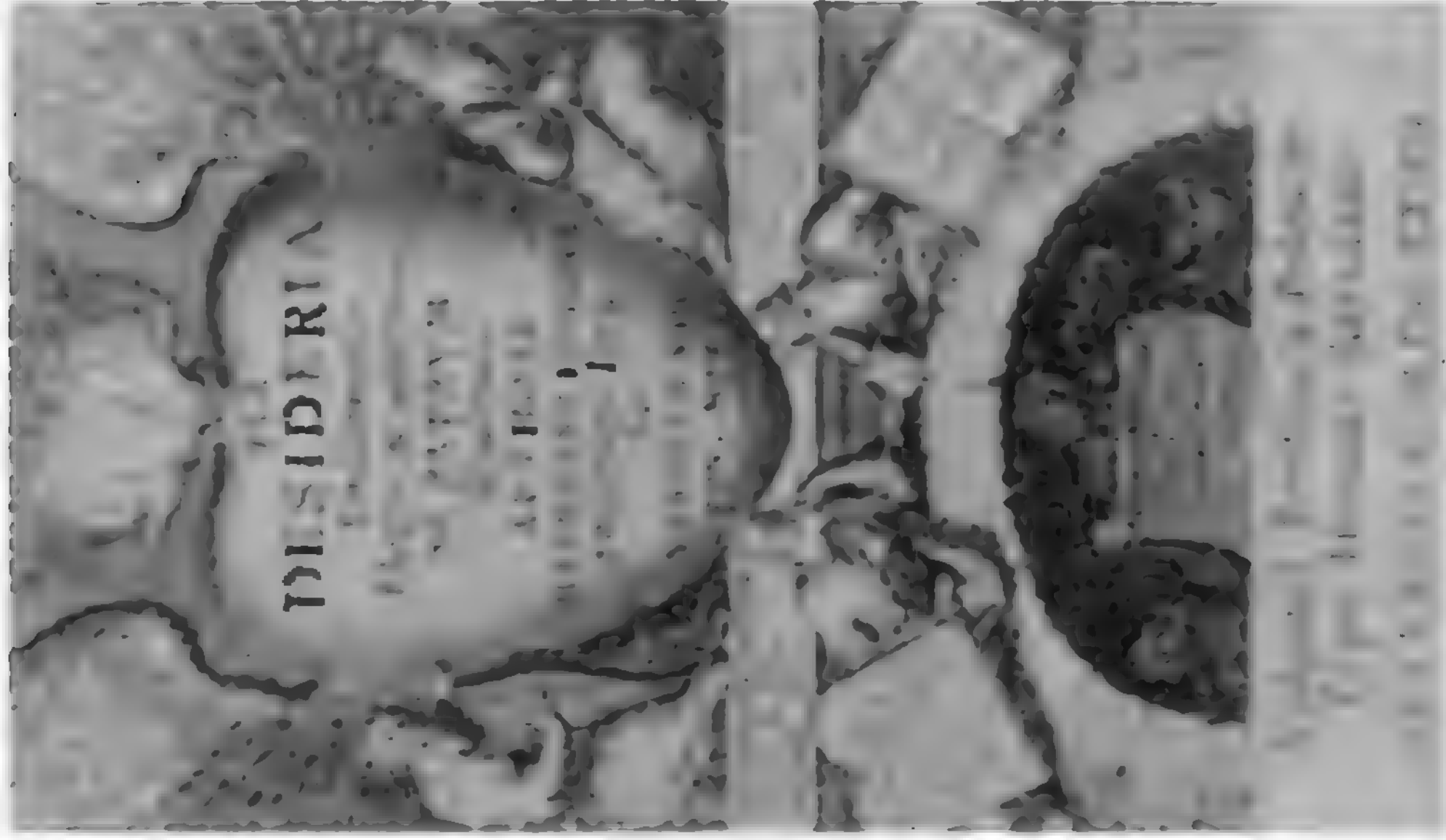


20(a) Winged Heart, from  
Harvey, *School of the  
Heart*, after van Haefken,  
1635 (p. 190)



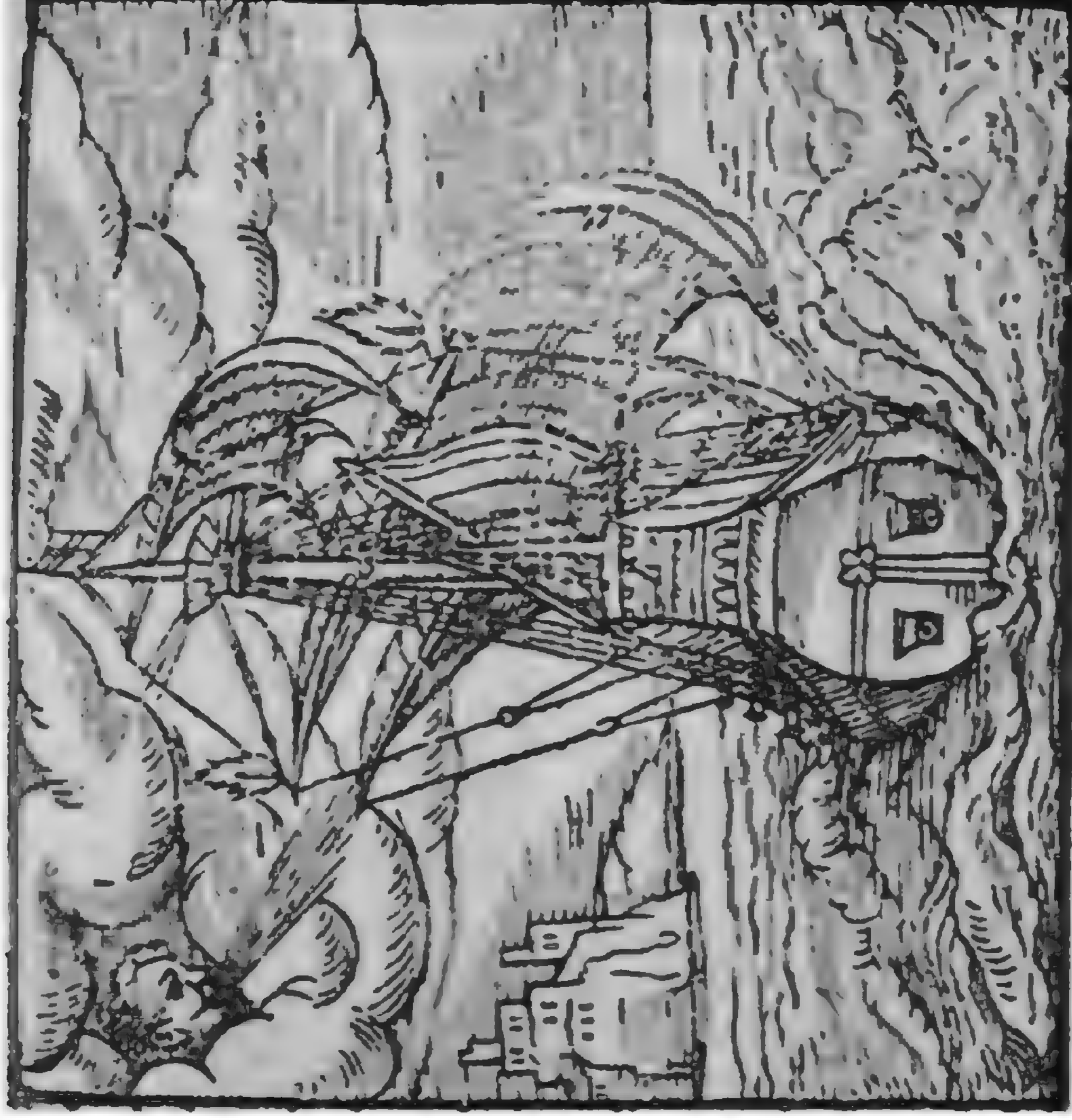
20(b) Divine Love releasing the  
Soul, from Hugo, *Pia  
Desideria*, 1624 (p. 190)



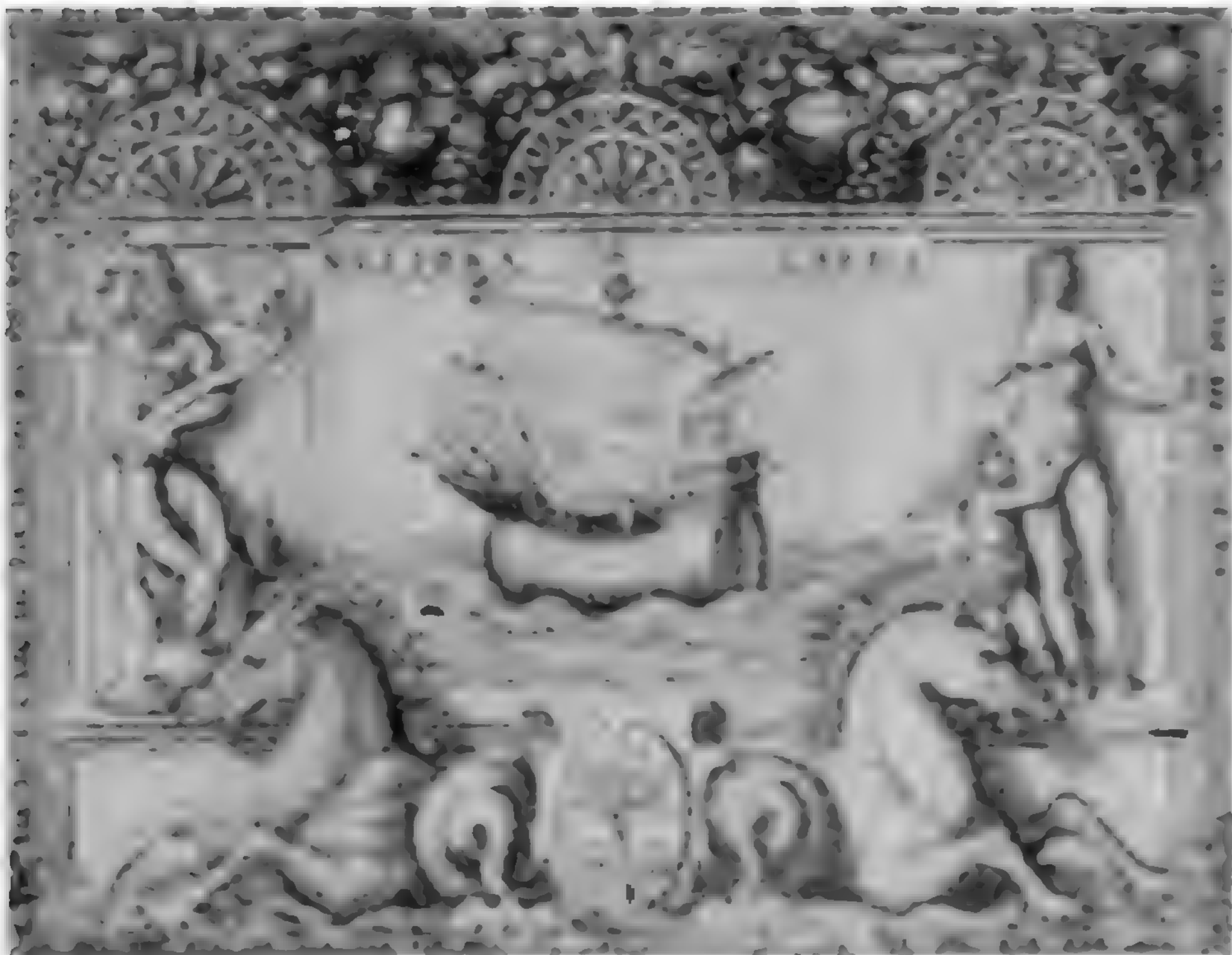


Vulgait Boetius a Bolswert  
 Typis Henrici Aertsfennii  
 ANTVERPIÆ M.D.C.XXIII.  
*(Cum gratia et Privilegio)*

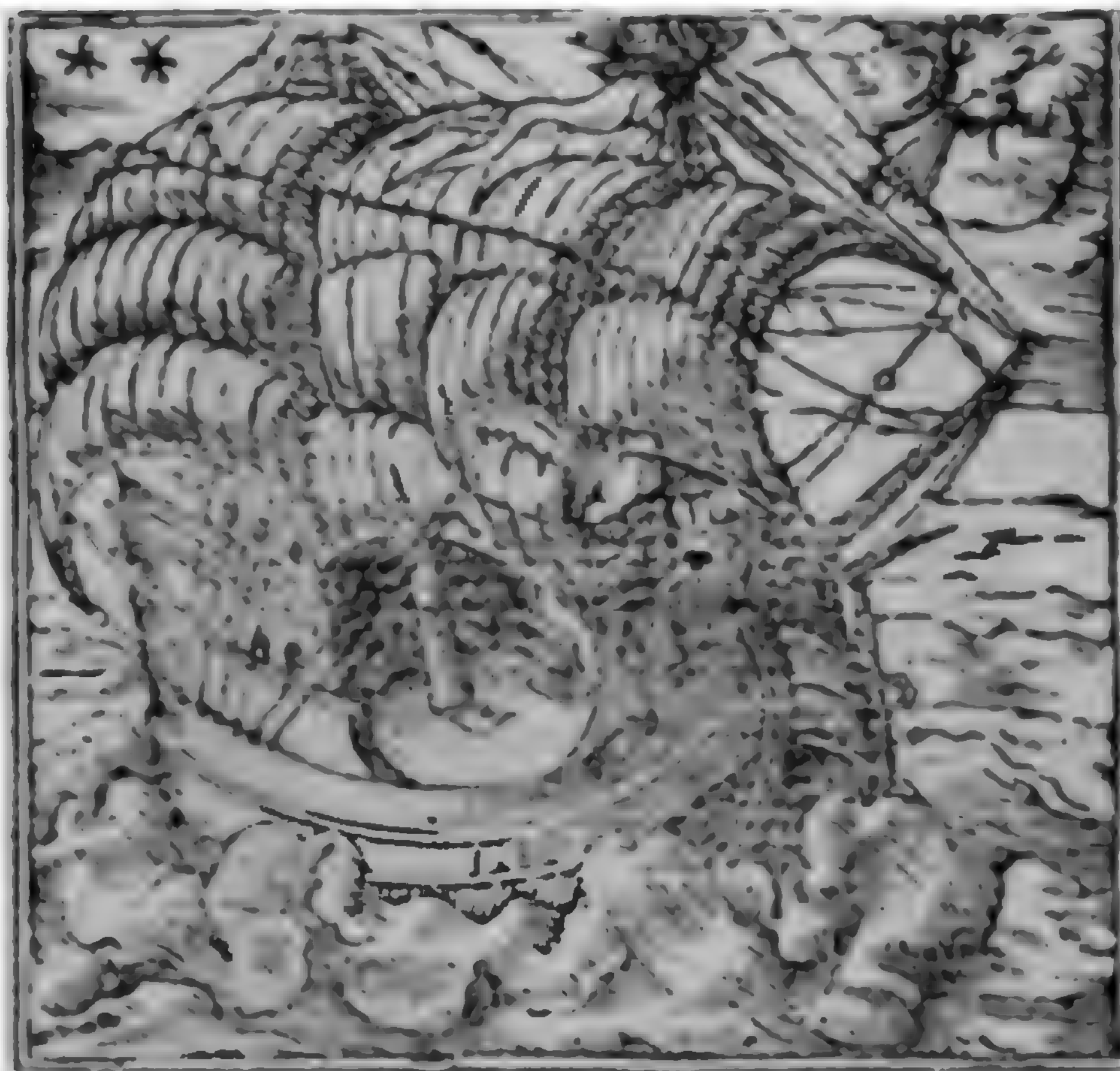
20(c) Winged Heart, title-page of  
 Hugo, *Pia Desideria* (p. 190)



20(d) Ship with Flames on Sail-  
 Yards, from Giordano Bruno,  
*Cena de le ceneri*, 1584 (p. 192)



20(e) Ship with Stars on Sail-Yards, from G. Ruscelli, *Le imprese illustri*, 1560 (p. 193)



20(f) Ship and Stars, from A. Alciati, *Emblemata*, Lyons, 1551 (p. 193)

Lull would feel sure that he had the true intellectual light, and that as a most fervent and devout Catholic believer — which he undoubtedly was — he was entirely free from heretical errors, but was on the contrary using the book in the right way for the most pious purpose of Christian apologetic. He might also have thought that the orthodoxy of his Trinitarianism was ensured through the heavy emphasis which he placed on the Augustinian trinity of *intellectus*, *voluntas*, *memoria*.

That Lull was not unaware that he was treading on dangerous ground may, however, be suggested by the curious fact that in all his many works he hardly ever mentions what sources he is using; though this fact might also be accounted for by his belief that the Art had been divinely revealed to him on Mount Randa.

The *De divisione naturae* was too deeply rooted in the earlier medieval tradition to be killed by its unfortunate association with the heretics. The Scotist tradition in Germany reached a rich flowering in Johannes Eckhart, or 'Meister Eckhart', the famous mystic. Eckhart (1260?—1327) is partially contemporary with Lull (1235—1315), though younger. He was profoundly influenced by Pseudo-Dionysius and also by Scotus' work. He taught that God brings forth in his Son the creative ideas, the archetypal forms, which are the 'natured nature';<sup>169</sup> the connection of this with the Scotist primordial causes is obvious, and the influence of Scotus on Eckhart is well known. The career of Eckhart illustrates how far from clear-cut was the situation about the ban on Scotus. Eckhart was a Dominican, and his teachings were widespread among Dominicans in Germany. In 1302 he was so well thought of in Rome that he was summoned thither by Pope Boniface VIII to assist in a controversy. Seven years before this, in 1295, Lull had been in Rome trying to induce Boniface VIII to sponsor the Art., Lull's Art was not accepted, and Eckhart fell under a cloud later on, but the situation in regard to Scotism may have become more fluid than it had been in earlier times when the heresies had so damaged the reputation of the *De divisione naturae*. In 1366, however, Nicholas Eymeric, the Dominican Inquisitor, began his campaign against Lull's works, in which he discovered what he considered to be numerous heresies.

The way might now be open to formulate valuable comparisons between the northern Scotism, typified in Eckhart, and the southern Scotism of Lull. In the former, the mystical and religious thought can be studied more openly; in the latter it is hidden behind the dry abstractions, the geometrical forms, of the Art. The



Lullian geometry may turn out to be one of his most important contributions towards the development of the philosophy.

With the great Nicolas of Cusa (1401–64), who became a cardinal of the Church, Scotism gained a powerful protector (though the ban on the *De divisione naturae* was not lifted). Cusanus was an avowed disciple of Erigena and of Eckhart, and his great work the *De docta ignorantia* contains many citations from the *De divisione naturae*.<sup>170</sup> Cusanus was also interested in the *Clavis physicae* of Honorius Augustodunensis. There is a fifteenth-century copy of this work in a German hand in the library at Cusa which was probably executed for him.<sup>171</sup> Moreover, Mlle d'Alverny suggests that some marginal annotations in the illustrated Paris manuscript of the work might be in the hand of Cusanus, indicating that the manuscript might at some time have been in his possession.<sup>172</sup> It is therefore possible that Cusanus may have gazed at that picture of the primordial causes and their effects in chaos productive of the elements which has been so helpful to us in trying to get hold of these ideas.

It is also significant that in the passage quoted above from Cusanus in which he warns against allowing the weaker brethren to see books like the *Periphiseon*, he also mentions the 'Clavis Philosophiae Theodori' as another such work, too deep for the weak-eyed ones.<sup>173</sup> As Mlle d'Alverny points out<sup>174</sup> he almost certainly means the *Clavis physicae*, the abridgement of the *Periphiseon* (one of the speakers in which is called Theodorus) by Honorius. This grouping of the *Clavis* with the *Periphiseon* gives the impression that the Scotist tradition which had reached Cusanus was the German tradition, inaugurated by Honorius Augustodunensis and continued by Eckhart. And this is to be expected, since Cusanus himself was a native of southern Germany.

What, of course, now leaps out into a much fuller and clearer significance is the fact that Cardinal Cusanus collected manuscripts of works by Ramon Lull. This is a well-known and much discussed matter and it is unnecessary to give here the full list of the works by Lull which Cusanus had copied for him.<sup>175</sup> Amongst them were the *Ars demonstrativa*, with its elemental figures, and the *Liber chaos*; also one of the most important of the geometrical works, the *Liber de quadratura et triangulatura circuli*. We understand now at once why Cusanus was interested in Lull. Of course it was because Lull represented another branch of the Scotist tradition from which his own work and thought stemmed in its northern form. Cusanus, student of both Eckhart and Lull, brings the two lines together, and

it may well be that Lull's development of the Scotist philosophical geometry was of the utmost importance to Cusanus, whose own mind tended so strongly towards mathematical and geometrical formulations of divine truths. We can therefore picture the great Cardinal gazing at the 'A' figure of the *Ars demonstrativa* with full understanding of its profundity, and with full knowledge of its derivation from Scotus on the primordial causes and the circle. Indeed, in the passage in the *De docta ignorantia* where he says that all theology is circular, and that the names of the attributes, such as justitia, veritas, and the rest, are verified amongst themselves 'circulariter',<sup>176</sup> he is almost certainly thinking of Scotus on the primordial causes and the circle, or of Lull's 'A' figure, or of both.

The continuity of the medieval Scotist-Platonic tradition, deriving from the *De divisione naturae*, into the 'Renaissance' philosophy of Nicolas of Cusa, where it is obvious and recognized, may well also be present in other Renaissance thinkers. Does Pico della Mirandola's enthusiasm for the Dignity of Man, for example, owe anything to a hidden influence of Scotus' book, as well as to the influx from Byzantium of Greek texts and the renewed interest in the Greek Fathers? The problem of the influence of Scotus in the Renaissance (I am speaking, of course, of the influence of his original work and not of the abiding importance, for both Middle Ages and Renaissance, of his translation of Pseudo-Dionysius) has not, I believe, been studied as a whole, though at least one book has been written on Giordano Bruno and Erigena. When such an investigation is undertaken, the cognate problem of Lullism in the Renaissance may also be illuminated. Why was Lullism so prominent in the Renaissance? Why was Lull so mysteriously important to Pico della Mirandola or to Giordano Bruno? May it not have been because Lullism, and its Jewish relative Cabalism, were medieval traditions to which the modern interest in Neoplatonism could be attached? Hidden within Lullism was Scotus Erigena, the Neoplatonist of the ninth century.

Again, for the history of alchemy and of the view of nature on which it depends, the discovery of the Scotus-Lull link may turn out to be important. As I pointed out in my earlier article,<sup>177</sup> the gulf which used to exist between genuine works by Lull and those by the later alchemical writers who used his name is bridged by the discovery of the fact that the elements play such a large part in the Lullian Art. Though Lull himself was not an alchemist, and never used the Art for this purpose, the 'pseudo-Lullians' were right in

thinking that he had provided systems for calculating elemental influences, which they proceeded to use and to adapt for their own purposes.

If we look at the figure from a fifteenth-century pseudo-Lullian manuscript (Pl. 17b) which the late Sherwood Taylor reproduced in his book on *The Alchemists*,<sup>178</sup> we can see at once how much there is in it of the genuine Lull, as we have studied him here. There is the typical Lullian tree and at its root is an adaptation of the 'A' figure of the Art, with the letters around the circumference which in the Art signify the Dignitates, or the creative Names of God. This tree should be compared with the 'Arbor Elemental' (Pl. 17a), with its roots in the 'principles' of *Bonitas et alia*. The trunk of the 'Arbor Elemental' was in chaos, and there is 'chaos' written in the pseudo-Lullian diagram, within the circle at the base of the trunk of the tree. At the top of the tree there is another circle, marked with the planets and the signs of the zodiac. Here is the Lullian introduction of astrology into the Scotist system which, as we suggested earlier, turned the Scotist contemplation of the primordial causes into a scientific system, which could be used in the sciences, or pseudo-sciences. It must be agreed, I think that there is much of the genuine Lull in such 'pseudo-Lullism' as this.

As we gaze at that word 'chaos' on the alchemical diagram, we are taken right back behind pseudo-Lullism, behind Lull himself, to the 'inform matter' of the *De divisione naturae*, to 'chaos' as we see it in the illustration to Honorius' *Clavis physicae* (Pl. 16), issuing from the Scotist primordial causes above it. We have here what seems like a direct link between a fifteenth-century alchemical work and the *De divisione naturae*, a link which, if it could be explored further, might help to establish a more firmly based historical tradition to which to anchor the mysterious history of alchemy.<sup>179</sup> This subject is, of course, of vast complexity, and I make here only the tentative suggestion that Lull's development of Scotism towards what afterwards became Pseudo-Lullian alchemy might be one, among the many other possible lines along which to investigate it. The world-view of the *De divisione naturae*, with its mystique of the elements and its vision, as of some vast Byzantine figure, of Christ the Redeemer of nature, is a religious philosophy closely akin in spirit to the Hermetic Philosophy of the alchemists, and might be one among its many sources.

This article is obviously in no way a final treatment of any of the problems which it raises. I have decided to publish it as it stands, in



all its incompleteness, in order not to withhold from the many scholars now interested in Lull what may be a discovery of some importance. To work out all its implications in full will demand years of co-operative effort.

#### APPENDIX: JOHN SCOTUS ERIGENA ON THE PRIMORDIAL CAUSES AND THE CIRCLE

*Discipulus.* . . . Sed priusquam ad considerandos effectus primordialium causarum, ex quibus maxime prima omnium et una creatrix causa solet denominari, accedas, ordinem naturalem earum nosse convenit: adhuc enim mixtim indistincteque introductas esse arbitror. Nam, ni fallor, ad earum effectuumque suorum perfectam notitiam non mediocre auxilium quaerentibus praestabit, si prius naturalis ordo, quo a creatore conditae sunt, luculenter patefactus fuerit.

*Magister.* Primordialium causarum seriem divinae providentiae solers investigator sanctus Dionysius Areopagita in libro de divinis Nominibus apertissime disposuit. Summae siquidem bonitatis, quae nullius particeps, quoniam per se ipsam *Bonitas* est, primam donationem et participationem asserit esse per se ipsam bonitatem, cujus participatione, quaecunque, bona sunt. Ideoque per seipsam bonitas dicitur, quia per seipsam summum bonum participat. Cetera enim bona non per seipsa summum et substantiale bonum participant, sed per eam, quae est per seipsam summi boni prima participatio. Et haec regula in omnibus primordialibus causis uniformiter observatur, hoc est, quod per se ipsas participationes principales sunt unius omnium causae, quae Deus est. Quoniam vero summae ac verae naturae prima consideratio est, qua intelligitur summa ac vera bonitas, secunda vero, qua intelligitur summa ac vera *Essentia*, nec immerito primordialium causarum secundum locum obtinet per seipsam essentia, quae cum summae ac verae essentiae prima participatio sit, omnia, quae post se sunt, sua participatione accipiunt esse, ac per hoc non solum bona, verum etiam existentia sunt, tertia divinae naturae intentio est, qua intelligitur summa veraque *Vita*, ideoque tertia in primordialibus causis per seipsam vita connumeratur, quae summae ac verae vitae prima per se participatio subsistens, ut omnia post eam viventia participatione ejus viverent, creata est: hinc conficitur et bona, et existentia, et viventia esse. Ejusdem naturae quarta theoria, qua summa ac vera *Ratio* cognoscitur. Hinc perspicitur quartam inter primordiales per se ipsam ratio sessionem, primamque summae ac verae rationis participationem, omniumque post se rationabilium, hoc est, rationis participantium possidere primordia. Divinae naturae quinta theoria in summa ac vera *Intelligentia* versatur; intellectus enim est



intelligens omnia, priusquam fiant. Ac per hoc quinta in ordine primordialium cognoscitur per seipsam intelligentia, cujus participatione intelligunt, quaecunque intelligunt, et intellectus sunt; ipsa vero prima participatio summae ac verae intelligentiae condita est. Sexta contemplatio divinae naturae in vera summaque *Sapientia* constituitur. Hinc non immerito inter primordiales causas sexto loco per seipsam sapientia collocatur, quae prima participatio est summae ac verae sapientiae, participatione vero sui omnibus post se sapientibus sapiendi causa creata est. Verae ac summae naturae septima contemplatio est, quae considerat summam ipsius ac veram virtutem. Ac per hoc per seipsam *Virtus* inter primordiales septimam sedem occupat, et est prima participatio summae ac verae virtutis; ceterae vero post eam virtutum species participationes ipsius sunt. Octavus theoriae gradus est, in quo mens pura summa veraque divinae naturae beatitudinem intuetur. Cujus prima participatio est per se *Beatitudo*, quam veluti octavam primordialium participant, beataque sunt, quaecunque post se beata sunt, omnia. Nona in ordine theoria divinae ac summae veritatis, cujus prima participatio est per seipsam *Veritas*, post quam et per quam quasi primordialium nonam vera sunt, quaecunque vera sunt, omnia. Decima ponitur per seipsam *Aeternitas*, quae prima participatio est summae ac verae aeternitatis, et post quam et per quam aeterna sunt, quaecunque aeterna sunt, omnia. Eadem ratio est de *Magnitudine*, de *Amore* et *Pace*, de *Unitate* et *Perfectione*; per has enim primordiales causas a summa omnium causa descendunt, quaecunque magnitudinis, amoris, pacis, unitatis, perfectionis participantia sunt.

Sufficiunt haec, ut arbitror, ad ea, quae volumus, manifestanda. Praedicta siquidem theoria uniformiter in omnibus rerum omnium principiis, in infinitum progredientibus, mentis obtutibus deiformiter arridet ubique, sive in his, quae et intelligi et nominari possunt, sive in his, quae solo intellectu percipiuntur, significationibus tamen deficiunt, sive in his, quae nec intellectu comprehenduntur, nec nominationibus exprimuntur; fugiunt enim omnem sensum omnemque mentis contuitum; nimia siquidem altitudinis suae claritate obscurantur. In ipso enim sunt, de quo Apostolus dixit: *Qui solus habet immortalitatem, et lucem habitat inaccessibilem*. Nec mirum, si causae primordiales in infinitum protendantur. Ut enim prima omnium causa, ex qua, et in qua, et per quam, et ad quam conditae sunt, infinita est, ita et ipsae finem nesciunt quo claudantur, praeter Creatoris sui voluntatem.

Et notandum, quod ordo iste primordialium causarum, quem a me exigis, ad certum progrediendi modum inconfuse discerni non in ipsis, sed in theoria, hoc est, in animae contuitu quaerentis eas, earumque, quantum datur, noticiam in seipso concipientis, eamque quodammodo ordinantis constitutus sit, ut de eis certum aliquid puraque intelligentia definitum pronuntiare possit. Ipsae siquidem primae causae in seipsis

unum sunt, et simplices, nullique cognito ordine definitae, aut a se invicem segregatae; hoc enim in effectibus suis patiuntur. Et sicut in monade, dum omnes numeri sola ratione subsistunt, nullus tamen numerus ab alio numero discernitur; unum enim sunt, et simplex unum, et non ex multis compositum unum, siquidem ex monade omnis numerorum multiplicatio progreditur in infinitum, non autem monas ex multiplicibus et a se progredientibus numeris veluti in unum collectis conficitur: similiter primordiales causae, dum in principio omnium, in Verbo videlicet Dei unigenito, substitutae intelliguntur, unum simplex atque individuum sunt, dum vero in effectus suos in infinitum multiplicatos procedunt, numerosam ordinatamque sui pluralitatem recipiunt, non quia causa omnium ordo non sit vel ordinatio, vel per seipsam ordinatio in principiis rerum non numeretur, cum omne ordinatum participatione ipsius sit ordinatum; sed quia omnis ordo in summa omnium causa, et in ipsius prima participatione unus ac simplex est, nullisque differentiis discernitur, ubi omnes ordines a seipsis non discrepant, quoniam unum inseparabile sunt, unde rerum omnium multiplex ordo descendit.

Ordo itaque primordialium causarum juxta contemplantis animi arbitrium constituitur, in quantum earum cognitio de divinis causis disputantibus datur. Licet enim pie ac pure philosophantibus ab unaquaque earum, prout vult, inchoare, et per ceteras mentis oculum, qui est vera ratio, ordine quodam contemplationis convolvere, omnes, quascunque potest, percipiens, et in qualicunque earum terminum suae theoriae constituere. Sicut nunc intentionis nostrae humilis capacitas ex bonitate primordialium causarum, veluti quodam ordine constitutarum, numerum coepit computare, et in ea, quae dicitur per seipsam perfectio, veluti quinto decimo loco constituta finem exemplo dedit, quoniam exempli gratia has principales causas pro viribus intentionis suae elegit, et, ut ei visum est, ordinavit, non quod ita natura sua sint constitutae, ubi omnia unum sunt, et simul et simpliciter sunt, sed quod quaerentibus eas, deque eis quiddam exempli gratia proferre volentibus, sic vel sic, et multipliciter, et infinite, divino radio illuminante, in theophaniis suis solent apparere.

Et ut hoc exemplo rerum sensibilibum clarius elucescat, centrum et circumscriptum ei circulum diligenter intueri, rectasque lineas a centro inchoatas, et ad circulum porrectas, ibique terminatas.

*Discipulus.* Saepe hoc aspexi, seu in animo per phantasiam interius, seu in figura visibili corporeaque exterius sensui subjecta.

*Magister.* Non intuitus es, quomodo omnes lineae in centro adunantur, ut nulla illarum ab aliis discerni possit, nimirum, quia omnes in eo unum sunt, et nullo modo a seipsis discrepant, ita ut rationabiliter non junctura linearum in unum, sed fons atque principium simplex et individuum, ex quo sive naturaliter, sive arte, multiplex linearum numerus procedit,

centrum definiatur; est enim centrum universale linearum initium, in quo omnes unum sunt.

*Discipulus.* Hoc quoque in geometricis rationibus mihi apertissime suasum. Sed haec omnia plus animo quam sensu percipiuntur, sive interius per phantasiam, sive exterius per sensum de talibus velit quis disputare.

*Magister.* Recte dicis; haec enim et huiusmodi pura mentis acie dijudicantur. Vides, ni fallor, in prima linearum progressionem ab ipsa unitate, quae in centro est, quantum sibi invicem lineae conjuguntur, ut vix discerni a se invicem possint. Dum vero longius a centro protenduntur, latius paululum spatia, quibus a se invicem segregantur, crescere incipiunt, donec ad extremum circulum, quo finiuntur, perveniant; ubi latissima sua diastemata mensurantur, hoc est, spatia inter lineas constituta, quae sibi invicem aequalia sunt, ut nulla eorum latiora aut angustiora aliis reperiantur. Quemadmodum et in ipsis lineis una eademque longitudo est in tantum, ut earum nullae longiores aliis aut breviores sint, naturali rationabilique aequalitate in utrisque servata, in latitudine spatiorum dico et in longitudine linearum.

*Discipulus.* Ita est, et plane intelligo.

*Magister.* Quid, si velis spatiorum et linearum numerum dignoscere, et in ordinem quendam redigere? Num potes speciale spatium, lineamve specialiter invenire, ex quo, vel ex qua naturaliter ac proprie incipias?

*Discipulus.* Mihi quaerenti non occurrit. Tanta siquidem aequalitas in his praevalet, ut nullum spatium ab alio, nulla linea ab alia per differentiam quandam seu proprietatem possit discerni. Nam et ille circulus, intra cuius ambitum omnia colliguntur, ita sibimet in seipso similis est, ut nulla pars ejus ab alia discernatur, seu natura, seu arte. Continua namque quantitate pollet, ac per hoc nullo certo principio inchoat, nullo constituto fine concluditur, sed totus sibimet in toto et principium est, et finis subsistit. Hinc est, quod circularis motus ἀναρχος a Graecis, hoc est, principio carens recte nominatur, aliorumque motuum, id est, recti et obliqui, obtinet principatum.

*Magister.* In his omnibus non falleris, ut opinor; non enim aliter vera edocet ratio. Num itaque cernis, quod nulla lex figurarum tibi obstat, vel te cohibet, ut ab omni spatio seu linea incipias totam figuram et ordinare et numerare? Sic enim imperat ratio. Ac per hoc quot spatia lineaeque sunt, tot principia finesque numerandi et ordinandi fieri possunt.

*Discipulus.* Huic etiam conclusioni non resisto; sed, quorsum tendat, expecto nosse.

*Magister.* Non aliorsum, nisi ut luce clarius cognoscamus, summos rheologos eorumque pedisequos omnino posse, nulla ratione obstante, et ab omnibus primordialibus causis contemplationis eorum initium sumere, et in omnibus, prout cuique visum fuerit, ipsius contemplationis finem constituere, ita ut, quot primordiales causae sint, et, ut cautius eloquar,



quot in contemplantium intellectibus quoque modo formantur, seu formari possunt, tot earum ordines numerosaque pluralitas recte philosophantibus juxta capacitatem singulorum theoriae, prout quisque voluerit, mirabili divinae providentiae dispositione ultro sese offerunt; et dum haec in mentibus theorizantium divinae disciplinae divinarumque theophaniarum modis diversis mirabilibusque peraguntur, ipsae per seipsas omnium, quae sunt, primordiales rationes uniformiter et incommutabiliter in Verbo Dei, in quo factae sunt, unum et id ipsum ultra omnes ordines omnemque numerum aeternaliter subsistunt.

*Discipulus.* Clare jam video tuae intentionis ratiocinationisque finem, siquidem, ut arbitror, nil aliud suadere contendis, nisi ut in ipsis principiis rerum nullus ordo naturaliter specialis quaeratur. Et merito. Quis enim in his, quae supra omnem numerum omnemque ordinem excelsitudine suae naturae a conditore omnium creata sunt, ordinem vel numerum rationabiliter quaesierit, dum sint omnis numeri omnisque ordinis initia in semetipsis sibi invicem unita, et a nullo inferioris naturae contuitu discreta? Sola siquidem gnostica conditoris earum virtus eas numerare, discernere, multiplicare, ordinare, dividere non incongrue creditur posse. Quoniam vero modo quodam incognito, utraque naturam reperto, in theophaniis suis mentibus contemplantium conformantur, in eis etiam et multiplicari, et dividi, et numerari posse dignoscuntur, in intellectibus dico, prout datur eis contemplantium. Ac per hoc conficitur, eas, id est primordiales causas, nullum ordinem intellectui, vel sensui cognitum in semetipsis recipere; in earum vero theorico, hoc est, contemplative animo quosdam ordines diversos atque multiplices conceptione quadam intelligentiae procedente in ratione per quasdam imaginationes verisimiles nasci.

John Scotus Erigena, *Periphiseon, id est De divisione naturae*, liber tertius; J.-P. Migne, *Patrologia latina*, 122, 622–6.



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ESSAYS ON  
GIORDANO BRUNO  
IN ENGLAND

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## INTRODUCTION

IN THE PREFACE to my book *Giordano Bruno and the Hermetic Tradition* (1964) is the following remark:

There is a great omission in this book, namely the influence on Bruno of Ramon Lull which I have hardly mentioned, nor have I used his many works on Lullism. A study of Bruno and the Lullian tradition is needed which one day I hope that I may be able to produce. The three strands of the Hermetism, the mnemonics, the Lullism are all interwoven in Bruno's complex personality, mind and history. All three have a history running from the Middle Ages through the Renaissance up to the dividing line of Descartes and the seventeenth century.

I have not written a full study of Bruno and Lullism, though I began it, or one aspect of it, in *The Art of Memory* (1966). A chapter of this book is devoted to the study of Bruno's *De umbris idearum* (1582) in which he 'occultizes' the Lullian art of memory by using magic images of the stars on Lullian combinatory wheels. This is a reversal of Lull's careful avoidance of images in his elemental theory. Bruno, however, knows the elemental theory and uses it in his Lullian medicine. Bruno's use of Lullism is probably close to that of Agrippa, by whose *De occulta philosophia* he was heavily influenced.

Bruno was influenced by Lull in the sense of mission with which he propagated his magic art of memory and in his choice of the

French King as leader. As J. N. Hillgarth has admirably brought out, Lull based his missionary endeavours on Paris and on the French King (Philip IV) as the hope of the world. Bruno came to England as a missionary in the interest of the contemporary French King, Henri III. Paris in the sixteenth century was the foremost European centre of Lullism, and no Parisian could have failed to recognize the circles in Bruno's art of memory as the famous combinatory wheels of the Lullian Art. Bruno came from France to England as a Lullist missionary of the new magical kind, a magician with a missionary art.

The essays here reprinted are, however, not concerned with Bruno's Lullism, which still awaits full treatment, as does the Lullism of Agrippa.

The first three of the following four essays are prolegomena to my book, *Giordano Bruno and the Hermetic Tradition* (1964), written many years before the book was published. They are used in the book but contain much material which was not included in it. They are both an extension of the book and a historical account of the stages which led to the new understanding of Bruno in England. The fourth essay, written several years after the book was published, presents the most recent stage of my studies.

I first met Giordano Bruno at the French Embassy in London in 1583 when working at my book *John Florio* (1934). I decided that I would try to translate the dialogue, *La cena de le ceneri*, in which he describes going with Florio through the streets of London to a Supper (*The Ash Wednesday Supper*). As I translated this strange work I became very puzzled: what I was translating did not seem to correspond with what I had been told about Bruno. He had hitherto been represented as a modern philosopher in conflict with reactionary medievalism as he argued about the Copernican theory with Oxford doctors at this Supper. 'Giordano Bruno's Conflict with Oxford' was a part of my unpublished introduction to my unpublished translation. This essay was my first published attempt at putting Bruno into historical context. It presents him as in conflict, not with medieval Oxford but with Tudor Oxford which had expelled medievalism.

'The Religious Policy of Giordano Bruno' continues the examination of the arguments with the Oxford doctors about the Copernican theory and draws the still more daring conclusion (more daring as compared with the first essay) that there was a hidden allusion to the Sacrament behind Bruno's defence of heliocentricity; that the rising Sun of Copernicanism referred to his religious policy; that this was,

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in fact, what the Supper was really about. This was a fantastic idea in 1940 (not a good year for examining new ideas), and still more subversive of the old image of Bruno as the martyr for modern science.

Meanwhile, in the many years between the early articles and the book, I had been learning, from E. Garin, D. P. Walker, and other scholars, about the new trends in history of ideas, about Renaissance magic and the Hermetic tradition. In the *Corpus hermeticum* I found the statement of 'Hermes Trismegistus' that the earth moves because it is alive, and the impassioned Lament for the magical religion of the Egyptians. Here at last was the final clue to the debate with the Oxford doctors. The sun-centred universe was a hieroglyph of Bruno's magical religion of which he prophesied the return, as Hermes in the Lament prophesied the return of the religion of the Egyptians. This tallied with the magic I had been discovering in Bruno's Latin works, and explained Bruno in England as a Renaissance magus. This discovery, at the heart of that 'Copernicanism' which I had been taught to venerate as the outlook of a modern mind, impressed me profoundly, and led me to study the Hermetic tradition of which I now found Bruno to have been a leading representative.

When an English translation of the *Cena de le ceneri* at last appeared (*The Ash Wednesday Supper*, translated by E. A. Gosselin and L. S. Lerner, Archon Books, 1977), the translators' introduction and notes used my *Bruno* and *French Academies*, and the two articles here reprinted. The ideas which had seemed too fantastic for publication when I first wrestled with them in my old translation of the *Cena*, now flowed out quite naturally as the right historical setting of Bruno's strange work. What had happened in the intervening years was the discovery of the hermetic or magical undercurrent in Renaissance thought.

The third of the early essays here reprinted, 'The Emblematic Conceit in Giordano Bruno's *De gli eroici furori* and in the Elizabethan Sonnet Sequences' (1943) studies the Philosopher as Poet. One of Bruno's dialogues is in the form of a series of poems, accompanied by verbal descriptions of emblems: the meaning of the poem and the emblem is given in a commentary. The essay treats this dialogue as a sonnet sequence, or an unillustrated emblem book, in which the Petrarchan love-conceits are used as emblems expressive of mystical enthusiasm or aspiration. Bruno's use of the conceits is compared with that of Philip Sidney and other Elizabethan poets, and with the same conceits in illustrated emblem books. The



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essay is used in *Bruno* but without the illustrations and the detailed attempt to place Bruno's emblematic use of the conceits in historical context. On the other hand, the book relates the divinity sought by Bruno through the conceits to his natural, or magical, religion. This study reflects the emblematic, or 'hieroglyphic' tendency in Bruno's mind, philosophy, and language, the artistic and poetic side of his influence and its affinities with the Elizabethan imagery studied in my *Astraea* (published years after the essay in 1975). The 'Ship and Stars' emblem, as related to imagery in French festivals which Bruno had seen, is discussed in *Astraea*.

The 'emblems' essay was reprinted in *England and the Mediterranean Tradition*, edited by the Warburg and Courtauld Institutes, Oxford University Press, 1945. A more recent English translation of the *De gli eroici furori* than the one by Williams from which I quote is *The Heroic Frenzies*, by P. E. Memmo, Chapel Hill, N.C., 1964.

The last essay, 'Renaissance Philosophers in Elizabethan England: John Dee and Giordano Bruno', brings my studies of Bruno in England up-to-date. It is an outcome of my book *The Occult Philosophy in the Elizabethan Age* (1979) which is concerned with John Dee's thought and influence. The essay contrasts the movements and the ideas of Bruno and Dee and includes yet another visit to the Ash Wednesday Supper for a comparison of Dee and Bruno on Copernicanism. It presents a slightly different picture of Bruno's influence from the 'emblems' essay, yet the two stand together, the one representing Bruno, the Poet, in England, the other a more objective approach arrived at through more recent studies.

The problem of secret societies, freemasonry and Rosicrucianism, possibly relating to the dominance of the occult philosophy in Elizabethan England, has not been touched on in these essays. It is discussed in *The Rosicrucian Enlightenment*.

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References to the corresponding pages in the second Gentile

## INTRODUCTION

edition (G<sup>2</sup>) are given at the foot of the pages in the Aquilecchia edition.

*La cena de le ceneri*, ed. G. Aquilecchia, was published in 1955 (Milan, Einaudi).

Relevant studies by Frances Yates:

*John Florio: The Life of an Italian in Shakespeare's England*, Cambridge University Press, 1934; New York, Octagon Books, 1968.

*A Study of 'Love's Labour's Lost'*, Cambridge University Press, 1936.

*The French Academies of the Sixteenth Century*, London, Warburg Institute, 1947; Kraus Reprint, 1967.

*Giordano Bruno and the Hermetic Tradition*, London, Routledge & Kegan Paul, 1964.

*The Art of Memory*, London, Routledge & Kegan Paul, 1966.

*The Rosicrucian Enlightenment*, London, Routledge & Kegan Paul, 1972.

*Shakespeare's Last Plays: A New Approach*, London, Routledge & Kegan Paul, 1975.

*Astraea: The Imperial Theme in the Sixteenth Century*, London, Routledge & Kegan Paul, 1975.

*The Occult Philosophy in the Elizabethan Age*, London, Routledge & Kegan Paul, 1979.

## GIORDANO BRUNO'S CONFLICT WITH OXFORD

WHEN GIORDANO BRUNO came to Elizabethan Oxford and expounded his Copernican philosophy he met with a great deal of opposition, some idea of which can be gathered from his *Cena de le ceneri* (1584),<sup>1</sup> in which he describes an encounter with two Aristotelian pedants, and from the beginning of his *De la causa, principio e uno*,<sup>2</sup> where he makes a half-hearted apology for the strictures on English academic learning in the earlier work. Writers on Bruno have generally assumed that his clash with Aristotelianism in England is symbolic of the conflict between the 'old' and the 'new', the 'old', in their eyes, being the medieval world-system and the authoritarian rigidity of medieval Aristotelianism whilst the 'new' is represented by what they believe to be Bruno's acceptance of the new science (i.e. the Copernican theory) on rational grounds and his determination to build upon it a thought-structure unhampered by the chains of scholastic orthodoxy. On this view Torquato and Nundinio, the Oxford Aristotelians of the *Cena de le ceneri*, would represent the dead hand of traditionalism lying heavy upon their ancient university, whilst Bruno's stormy encounter with them would typify the new boldness of Renaissance thought breaking through Ptolemaic barriers into the boundless possibilities of the infinite. A suspicion that this generalization may be misleading can be gained by a study of the historical background of Bruno's visit to England.

A moment's reflection will suggest that the Oxford truly representative of medieval philosophy must have been severely

shaken under Henry VIII, ravaged under Edward VI, and confused by the counter-revolution under Mary, so that in these Elizabethan years of Bruno's visit it can hardly have borne much resemblance to the Oxford of Roger Bacon or of Duns Scotus. Bruno's biographers have not ignored this fact. One of the earliest of them gave a fairly comprehensive account of the upheavals at Oxford since the Middle Ages and knew that the reputation of the university had suffered in the process.<sup>3</sup> One of the most authoritative was aware that the doctors whom Bruno met at Oxford were of a new kind.<sup>4</sup> But there has been no systematic attempt to relate the English background to the character of Bruno's satire as a whole, and it is vaguely assumed that Oxford was disgusted with him because of the 'modernity' of his ideas. A more exact study of this question has recently been made by Signor L. Limentani<sup>5</sup> who, in the course of an examination of the mention of Bruno by Gabriel Harvey, points out that Harvey was a Ramist and discusses what effect this might be likely to have had upon his reactions to Bruno. This recognition of the fact that Ramist anti-Aristotelianism existed in the England which Bruno visited should serve as a reminder that Tudor philosophy was not medieval philosophy and might prompt one to enquire into the nature of the Aristotelianism of those Oxford doctors who aroused Bruno's wrath.

The Platonic tradition of the earlier Middle Ages remained relatively strong at Oxford even during the later Aristotelian period. Roger Bacon had resisted the hardening of authoritarian thought around Thomist Aristotelianism, and Bacon was never forgotten by his successors of the fourteenth and fifteenth centuries. Under the protection of a Pythagoro-Platonic number mysticism, mathematics had flourished in the university and the great Merton school of astronomy was famous all over the continent.<sup>6</sup> The early stirrings of the English Renaissance did not cause a break with this indigenous strain of thought. The pre-Reformation English humanists – such as Linacre, Grocyn, More – were Platonists, and were easily able to adapt the new humanist Platonism from Florence to the native texture of their minds. They used their Greek studies to enrich and to supplement the older philosophical and scientific tradition with excellent results.<sup>7</sup> But there was a tendency in humanism to depreciate the whole output of the Middle Ages on account of the 'barbarous' Latin style of medieval philosophers and, when the steadying influence of More and his circle was removed,<sup>8</sup> this Renaissance fashion of aesthetic scorn for the past took on a



destructive aspect in England during the religious and political convulsions of the Reformation period. The philosophical learning for which Oxford had once been famous came to be regarded in certain quarters as not merely 'barbarous' from the point of view of the New Renaissance culture, but 'wicked' from the point of view of the Reformed religion. The genial Erasmian satire on the old learning<sup>9</sup> was used by the new men in England as a weapon against the Papist past. Scenes of destruction took place in Oxford (and not in Oxford only but in every library in England) during the reign of Edward VI. In 1550 the government's commissioners visited Oxford and the books and manuscripts of medieval learning were destroyed wholesale:

The works of the Schoolmen, namely P. Lombard, Th. Aquinas, Scotus and his followers with Criticks also, and such that had Popish Scholias in them, they cast out of all College Libraries and private Studies. . . . Not content with this, but they slandered those most noble authors as guilty of barbarism, ignorance of the Scriptures, and much deceit, and as much as in them lay did endeavour to damn their memories to eternity. And lest their impiety and foolishness in this act should be further wanting, they brought it so to pass that certain rude young men should carry this great spoil of books about the city on biers; which being so done, to set them down in the common market place and there burn them, to the sorrow of many, as well of the Protestant as the other party. This was by them stiled 'the funeral of Scotus and Scotists'. So that at this time in all this King's reign, was seldom seen any thing in the University but books of Poetry, Grammar, idle songs and frivolous stuff.<sup>10</sup>

Here one sees how the old learning had become, not merely dull and barbarous, but wicked and Popish, whilst the new 'grammar', or a rather debased form of humanism, is the mark of the more rabid and ignorant kind of Protestant.

The commissioners regarded any books or manuscripts containing mathematical diagrams with peculiar suspicion:

Sure I am that such books wherein appeared Angles or Mathematical Diagrams, were thought sufficient to be destroyed because accounted Popish, or diabolical, or both.<sup>11</sup>

This prejudice involved an attack on the Merton library:

From Merton Coll. Library a cart load of MSS and above were taken away, such that contained the Lucubrations (chiefly of controversial Divinity, Astronomy and Mathematicks) of divers of the learned Fellows thereof, in which Studies they in the last centuries obtained great renown.<sup>12</sup>

The confusion of this violent revolution was made almost worse confounded, so far as the universities were concerned, by the short-lived and equally violent counter-revolution under Catholic Mary; so that when Elizabeth's reign opened Oxford was in a very weak and unsettled state. The lectureships in Greek which Wolsey and Henry VIII had founded and the modern Ciceronian eloquence which had been substituted for the old medieval 'barbarism' in Latin style hardly compensated for the havoc wrought in the stately edifice of Oxford philosophical learning. Prominent Englishmen often expressed their dissatisfaction with the state of affairs at Oxford, and as an example one may quote the advice given to his brother by Bruno's friend Sir Philip Sidney:

So you can speak and write Latin, not barbarously, I never require great study in Ciceronianism, the chief abuse of Oxford, '*qui dum verba sectantur, res ipsas negligunt*'.<sup>13</sup>

This was written in 1580, three years before Bruno came to England and made his attack on Oxford. It shows how Sidney, though a truly Renaissance figure in his deprecation of 'barbarism', was not satisfied with the redistribution of emphasis in English academic learning which the substitution of 'grammar' for 'philosophy' had brought about.

Yet, although the medieval spirit had been discarded, the medieval forms were carefully preserved in the academic system. Dialectical disputes still formed the basis of the training and Aristotle was the prescribed authority in all branches of philosophy. Indeed the prejudice against the past actually operated in favour of increased Aristotelian rigidity, as can be seen in the following decree promulgated on March 12th, 1585-6:

The 12 of the said month it was ordered for the future that all Bachelours and Undergraduats in their Disputations should

lay aside their various Authors, such that caused many dissensions and strifes in the Schools, and only follow Aristotle and those that defend him, and take their Questions from him, and that they exclude from the Schools all steril and inane Questions, disagreeing from the antient and true Philosophy.<sup>14</sup>

This order would cut away all those Scotist and Nominalist speculations, so characteristic of the old Oxford, in favour of a slavish adherence to Aristotle which is certainly not medieval in character, for it is based on the contempt of the new Oxford for the 'sterile and inane questions' discussed in the medieval schools, and on the modern, humanist, respect for the antique. Aristotle's philosophy is 'ancient' and therefore 'true', an opinion which Roger Bacon and his spiritual descendants would never have accepted. Elizabethan Oxford, therefore, by its very discard of the spirit of medieval philosophy, generated an increased Aristotelian rigidity. The core of the old learning had been scooped out and only a stiff, unyielding shell of dialectical habit remained.<sup>15</sup> The poverty of this situation was but ill concealed by the Greek studies and by the drapery of elaborate Latinity with which the new style Oxford scholars tried to demonstrate their superiority over medieval 'barbarism'.<sup>16</sup>

There were not only these discordancies at the heart of the system; its external government was also not in a good state. Wood quotes a letter from the Chancellor written in 1582<sup>17</sup> in which he complains bitterly of both manners and studies in the university. 'There is much disorder and drunkenness and the exercises in learning are not to be commended. The school lectures are 'almost only pro forma to no purpose'. The wonted beauty of the university is so decayed that it has become almost unrecognizable. The relations and friends of students complain that the youths return home less learned than when they went, except that they have learned to tipple in taverns and to behave as though they had long been conversant with the worst sort of people. From the Chancellor's letters<sup>18</sup> we learn that 'neither Lectures nor Disputations, nor any other kind of Exercises of Learning are almost in any tolerable sort observed' and that 'no civilitye, no order, no not so much as in your Convocations and publique assemblies among yourselves is any whit regarded'. The low estate to which Oxford had fallen was generally deplored in England, and one of Sir Philip Sidney's



biographers observes that to this was due the 'growing practice on the part of young men of noble birth to leave the university before graduating'.<sup>19</sup>

It is thus a serious historical inaccuracy to think of Bruno's conflict with Aristotelianism in England as the struggle of a 'philosopher of the Renaissance' with medieval traditionalism. In a series of revolutionary convulsions Oxford had done her best to destroy her own philosophical tradition (whilst retaining its technical forms) and she tried to conceal the resultant gaps under a cloak of 'grammar', of that attention to words rather than matter which a certain type of humanism had popularized.

If we now turn to Bruno's satire on Oxford we shall find that his criticism is mainly concerned with the new non-medieval features of the university and is thus an attack, not so much on medieval philosophy as on a certain form of Renaissance pedantry. The *Cena de le ceneri* opens with a series of questions about Torquato and Nundinio, the very first of which is 'Did they speak Latin well?' and the reply is 'Yes.'<sup>20</sup> Other questions elicit the answers that they were not very courteous and only fairly learned, and when it is asked 'Did they appear to know any Greek?' the reply is 'And eke<sup>21</sup> of beer they knew somewhat.' On the first lines of the first page of the *Cena* there is thus emphasis on the Latin style of the Oxford doctors and on their Greek studies. These were features by which the new Oxford differed from its medieval predecessor and was proud to do so. And the criticism as to the low standard of manners and scholarship in this new Oxford is only too well borne out by the English sources.

In a later passage the charge against the English doctors is their general bad manners and stupidity, but above all the fact that they are *doctors of grammar*:

It is such as these that England produces; and wherever you look you will find in these days that all the doctors are doctors of grammar. A whole constellation of them reigns over this happy country, and their obstinate ignorance, pedantry and presumption are combined with a boorish incivility of manner which would provoke the patience of Job. And if you believe it not, go to Oxford and get them to tell you what happened to the Nolan when he disputed publicly with doctors of theology in the presence of the Polish prince Alasco, and others of the English nobility.<sup>22</sup>



We are told that the English knights (amongst whom was Sir Fulke Greville and, probably, Sir Philip Sidney) who were present at the gathering in London at which Bruno disputed with English doctors concerning his Copernican philosophy apologized to the Italian for the behaviour of their countrymen:

The knights who were present besought the Nolan not to take offence at the rudeness and ignorance of their doctors, but rather to pity the poverty of this country which is widowed of good learning in the fields of philosophy and pure mathematics, concerning which all are so blind that asses like these are able to pass themselves off as seers.<sup>23</sup>

A country which has been 'widowed' of philosophy and mathematics must once have possessed those advantages. It was in the fields of philosophy and mathematics that medieval Oxford had been pre-eminent.

That Bruno in his mind compared the modern doctors of grammar with their medieval predecessors and decided that the change was not an improvement is proved beyond all doubt by the following remarks in the first dialogue of *De la causa, principio e uno* in which the storms which the satire of the *Cena* had aroused in England are described and discussed. 'I could have wished', says an English speaker in this dialogue, 'that you had not so bitterly inveighed against our university, and judged it by your general impression only, not taking into account what it has been in the past, what it may be in the future, and what, in part, it is at this day.' In the course of his apology Filoteo, the Philosopher (who represents Bruno himself), utters some vague, general praise of the university and adds:

Neither is the memory passed away of those who flourished in this place before speculative studies were to be found in other parts of Europe; although their language was barbarous and they were friars by profession, from the principles of metaphysics which they laid down was derived the splendour of a most rare and noble part of philosophy (now in our times almost extinct) which was diffused to other academies in all non-barbarian provinces. But what has disquieted me and caused me both annoyance and amusement is that, although I have found no purer Latin and Greek than here,<sup>24</sup> for the rest (I speak of the generality) they make a boast of being totally

different from their predecessors, who, caring little for eloquence and the niceties of grammar, were all intent on those kinds of speculation which these men call Sophisms. But I esteem much more highly the metaphysics of those bygone students, in which respect they went far beyond their lord and master Aristotle (although their work is of uneven value and tainted here and there with vain conclusions and theorems which are neither philosophical nor theological but merely the fancies of idle wits) than anything that these of the present age have to show, for all their Ciceronian eloquence and rhetorical art.<sup>25</sup>

Nothing could be clearer than this. Bruno distinctly says that he prefers the metaphysics of medieval Oxford to the grammar of Renaissance Oxford. The testimony is all the more striking since it comes from the lips of one who was himself an ex-monk and who has always been admired as a bold, rebellious Renaissance figure. 'Although' they were friars, 'although' their language was barbarous, 'although' their work is not to be uncritically accepted *in toto*, yet Grosseteste, Bacon, Scotus and their like are more to be esteemed than any that the present age has to show for all their new-fangled eloquence. Bruno notices and deplores the fact that the new men actually take a pride in being as different as possible from their predecessors whom they despise.

Throughout the first dialogue of the *Causa* one can see that Bruno thinks of himself as the defender of 'despised philosophy' against the new grammarians who spend their lives in studying words:

They examine every speech and discuss every phrase, saying this smacks of a poet, that of a comic writer, that of an orator. This passage is serious, that light; this is sublime, that is *humile dicendi genus*. That oration is rough; it would be lightened if it were altered, thus. This style is that of a childish writer who has made little study of antiquity, *non redolet Arpinatem*,<sup>26</sup> *desipit Latium*. This is not a Tuscan word; it is not to be found in Boccaccio, Petrarch and other approved authors. One should write 'omo', not 'homo'; 'onore', not 'honore'; 'Poliinio', not 'Polihimnio'. After these triumphs the self-satisfied pedant feels more pleased with his own prowess than with anything else in the world; he is a Jove who from his lofty post of observation looks down upon the lives of other

men weighed down by so many errors, calamities, miseries and useless labours.<sup>27</sup>

Bruno is as ready to condemn pedants in Italy as pedants in England. The grammatical obsession which he deplores<sup>28</sup> is a Europe-wide phenomenon and not confined only to Elizabethan Oxford. But the contempt of the pompous Ciceronian here described for the 'errors' and 'useless labours' of other men, for all writers whose style is unripened by classical studies, is a reflection of the attitude of the new Oxford towards medieval philosophy. As a representative of unfashionable philosophy, Bruno felt himself included in the scorn of the grammarians for the 'sterile and inane' questions of the schools.

The older English philosophical tradition, with its associated mathematical and astronomical studies, was not destroyed by the new policy at the universities but it began to flow in new channels. Such studies were carried on throughout the Tudor period by private individuals who collected and preserved the books and manuscripts which had been thrown out of the university and monastic libraries.<sup>29</sup> Doctor John Dee, one of the most eminent of Elizabethan scientists, assembled at his own expense a library of over 4,000 volumes. 'It was', says Mr Johnson, 'undoubtedly the greatest scientific library in England . . . for Dee not only had collected a vast store of important medieval manuscripts on science (which he could get the more readily because they were little valued by the plunderers of the monastic houses) but he had also seen to it that all the latest printed works on the mathematical sciences should be found on his shelves.'<sup>30</sup> Such men as John Dee, Robert Recorde, Leonard and Thomas Digges, were the continuers, under new conditions, of the mathematical tradition which the old pre-Reformation Oxford had encouraged but which had been violently interrupted at the universities by the political and religious revolutions. They used the work of Bradwardine, Baconthorpe, 'Hentisber', 'Suiseth the Calculator' and other 'sophists' of the old Oxford who had once enjoyed a European reputation, and they acknowledged themselves to be the descendants of Roger Bacon. The partisan attempt to break with this tradition at the universities by imposing a new kind of grammarian Aristotelianism, hitherto unheard of in England, thus only succeeded in deflecting the course of the river of philosophy.

Thomas Digges, one of the most eminent of Elizabethan 'phil-



osophers' (philosophy and science were not yet differentiated) received his training in mathematics and astronomy from his father Leonard Digges, an admirer of Roger Bacon,<sup>31</sup> and from Doctor Dee.<sup>32</sup> Dee was the great scientific leader and teacher of the period in England. He kept in contact with modern developments and was familiar with the work of Nicolas of Cusa and of Copernicus.<sup>33</sup> And at the same time he maintained contact with the past by his careful collection and study of medieval works. His library and laboratory at Mortlake were at the service of his friends, and it was largely through his efforts that the stream of philosophy, diverted from Oxford, came to flow in London.<sup>34</sup>

One of the features, therefore, of the new distribution in England of that 'philosophy' which, although it was being profoundly modified by new currents and new conditions, was yet in direct line of succession from the earlier English tradition, was that it was now to be found, not in the universities but amongst groups of private individuals, mostly in the neighbourhood of London. Another of its features was that great noblemen took an interest in the studies of such men and helped to finance them. There is a transfer in the patronage of 'philosophy' from the Church to the aristocracy. Sir Philip Sidney and his friend Dyer studied under Dee with 'God as a guide'.<sup>35</sup> And after the public disputes at Oxford before the Polish prince Alasco in which Bruno took part and in which the new grammarian doctors cut such a poor figure, Sidney took Alasco to Mortlake on a visit to the philosophical Doctor Dee,<sup>36</sup> the disciple of Roger Bacon. Sir Walter Raleigh and the Earl of Northumberland were later to gather round them groups of scientist-philosophers amongst whom was Thomas Harriot, the mathematician and Copernican.

It was in this stream running outside the universities that a lively interest in the Copernican theory was to be found. One of the most important of the early English Copernicans was Thomas Digges whose work on the subject, up till then unknown, was reprinted by Messrs Johnson and Larkey in 1934.<sup>37</sup> Digges's work was first published in 1576 and the numerous editions which appeared in later years testify to the interest which the Copernican theory was arousing in England.<sup>38</sup> There were editions of it in 1583 and in 1585, that is the year before and the year after the publication of the *Cena de le ceneri* in which Bruno makes his well known defence of Copernicanism. Digges's treatment of the subject has points in common with that of Bruno, the most important of which is the assertion, which he connects with the new theory, that the universe is infinite. The



association of the idea of infinity with the Copernican theory is, of course, peculiarly characteristic of Bruno. Digges's treatment is not the same as Bruno's, for he keeps the sun as the centre of the universe, whereas Bruno thought of the stars as innumerable solar systems and had followed Nicolas of Cusa in saying that no point could be picked out as the centre. Nevertheless they are at one in linking the Copernican system with the concept of infinity. Digges's great reputation in England must, as Mr Johnson remarks, have lent weight to his support of the Copernican system and accustomed his countrymen to associate it with the idea of infinity. But that he had met with some opposition in academic circles is perhaps suggested by the following remark in his preface:

Behold a noble Question to be of the Philosophers and Mathematicians of our Universities argued not with childish Invectives but with grave reasons Philosophicall and irreprovable Demonstrations Mathematicall.<sup>39</sup>

Freelance Elizabethan 'philosophers' such as Digges who were in the older tradition must have regarded the new grammarian Aristotelianism at the universities with as much disgust as did Bruno.

Let us now turn once more back to the picture which Bruno puts before us in the *Cena de le ceneri* and of which he says that every detail of the background, every look and attitude of the figures must be carefully examined, for the writer has been 'imitating a painter' and only he who 'examines the picture again and again with judgment' will be able to understand its meaning.<sup>40</sup> The central panel of this picture presents a group of people who have met in London to discuss philosophy. They meet at the invitation of a nobleman, Sir Fulke Greville, and from the praise of Sidney which occurs in the work it is probable that he also is present at the meeting. These noblemen wish to hear Bruno expound his Copernican philosophy and they also invite two Oxford doctors, 'Torquato' and 'Nundinio', who are to maintain against him the Ptolemaic and Aristotelian view. These doctors display great ignorance and stupidity. They are 'doctors of grammar' and they have no philosophical arguments with which to answer the Nolan's defence of the moving earth and the Infinite:

*Teofilo.* . . . Whilst the Nolan was making this speech,  
Doctor Torquato kept on shouting out '*Ad rem, ad*

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*rem, ad rem!*' until finally the Nolan began to laugh and said that he was not arguing, nor replying, but propounding, that, in short, '*Ista sunt res, res, res.*' And that it was now Torquato's turn to make some remark *ad rem*.

*Smitho*. This ass imagined that he was amongst ignorant, thick-witted people upon whom he hoped to pass off his *ad rem* as an argument and an answer; and thus to satisfy the multitude by the combination of his shouts and his gold chain.

*Teofilo*. Listen to what came next. The guests were all waiting to hear Torquato's long-expected argument, when, turning to them, he drew out from the deep stores of his wisdom one of Erasmus' adages, *Anticyram navigat*, which he mumbled at them through his moustaches.<sup>41</sup>

Here are the rude interruptions in debate of which the Chancellor himself complained. Here is the 'childish invective' which Digges describes as the attitude of the universities to this noble question. And the 'grammarian' cannot meet the philosopher on his own ground, but replies to a philosophical argument with one of those adages of Erasmus which were so dear to the Protestant humanist. 'Smitho', the private English gentleman of studious tastes to whom the story is related, is ashamed of these doctors; and in this he takes the same side as did the noblemen who were present at the debate and who felt it incumbent upon them to apologize to the Nolan for the behaviour of the doctors in a country which has been 'widowed of good learning in the fields of philosophy and pure mathematics'.

Whatever, therefore, may be the other meanings of this picture (every detail of which has to be examined again and again with judgment) the immediate or local meaning is, that it *reflects a cleavage which actually existed in English opinion at the time*. The dispute is held in London at the invitation of courtiers. This illustrates the change in the distribution of philosophy from the university to the court. The 'philosopher' who expounds the Copernican theory does not despise and reject wholesale the old Oxford tradition, but he does despise the grammarians of the new Oxford. This attitude would have been understood and shared by the English 'philosophical' friends of Sidney and Greville, those who – like Dee, Digges and their pupils – carefully collected the scattered fragments of the past, to which they added the 'Renaissance' advances in knowledge, such as the Copernican theory. Such men were not necessarily in

complete sympathy with the old religion. Like Bruno, they might have thought of Grosseteste, Bacon, or Scotus as those who 'although' friars, 'although' barbarous in their language, 'although' not always entirely to be relied upon, were yet most worthy of the serious attention of students of serious subjects, of 'philosophers' to whom rhetorical verbiage was not enough.

In England, Copernicanism (or an intelligent interest in Copernicanism) was characteristic of those who had not entirely rejected the old Oxford tradition; whilst grammarian Aristotelianism, with its scorn of mathematics, was characteristic of the revolutionary changes by which deliberate efforts had been made to stamp that tradition out in Oxford itself. The grouping in Bruno's picture of a 'philosopher' defending Copernicus and the Infinite against the 'childish-invective' of university grammarians reflects this situation. Although it is *not* as a mathematician that Bruno himself approaches the Copernican theory,<sup>42</sup> he has used the English background as a part of the colouring of his canvas. The scorn of 'Smitho', the private studious gentleman, and of the noble hosts of the supper party for the Oxford doctors illustrates the attitude of a certain select body of English opinion which was profoundly dissatisfied with those tactics by which a rigid Aristotelianism, based on a grammatical rather than on a scientific foundation, had been substituted in certain rather noisy academic circles for the older liberalism.

The following conversation between Prudentio, the Pedant, and Teofilo, the Philosopher, shows this conflict between the modern rigidity and the older liberalism. Prudentio objects to the Copernican theory because it is new:

*Prudentio.* Be that as it may; for my part I do not intend to diverge from the opinion of men of old in this matter, for, saith the sage, 'with the ancient is wisdom'.

*Teofilo.* But he adds, 'and in length of days understanding.' If you understood what you are saying you would see that the opposite of what you think is to be inferred from it, namely that we are older and have more time behind us than our predecessors had, I mean so far as certain kinds of learning, such as the subject under discussion, are concerned.<sup>43</sup>



This should be compared with Roger Bacon on the progress of knowledge:

additions can fitly be made to the statements of real authorities, and corrections applied in many cases. This Seneca shows excellently in his book *Quaestiones Naturales*, declaring in the third book, 'Ancient views are too inaccurate and crude; as yet thinkers were groping their way round truth. All things were new to the first investigators, later the same matters came under the file. Nothing is perfect at its commencement.' In the fourth book he says, 'The time will come when careful study through long ages will bring to light the secrets of nature. A single lifetime is not sufficient for the investigation of such weighty matters. The people of a future age will know much that is unknown to us, and the day will come when posterity will be amazed at our ignorance of things so clear to them.' Priscian says in the introduction to his larger volume that there is no perfection in human discoveries, and adds, 'The younger the investigators the more acute' because the younger, that is those of a later age, in the progress of time possess the labors of their predecessors.<sup>44</sup>

Bacon thus argues, like Teofilo, that antiquity is not a sign of infallibility and that those who come later in time possess an advantage in the experience of their predecessors. Bacon's attitude to the history of thought was not a dead letter in Elizabethan times, but would have been perfectly familiar to 'philosophers' like Sidney and his friends who had studied under that ardent Baconian, Doctor Dee. Teofilo's remarks would thus be highly sympathetic to those Englishmen who found an interest in the Copernican theory by no means incompatible with the older Oxford tradition.

To illustrate Prudentio's attitude we have only to remember the decree promulgated in Tudor Oxford by which students were ordered to cast aside their scholastic authors and follow only Aristotle, thus excluding from the schools all 'sterile and inane questions' disagreeing from the 'ancient and true' philosophy. This is exactly the basis of Prudentio's Aristotelianism. He has the humanist's deep respect for classical antiquity; Aristotle is to him an 'ancient' writer and therefore 'true'. By every word that he utters throughout the dialogue Prudentio characterizes himself as a rhetorician, a Ciceronian, a 'doctor of grammar'. His illiberal Aristotelianism is thus representative of the new Oxford which took



a pride in being as different as possible from its predecessor, whilst Teofilo's more open-minded views are in harmony with those of the spiritual descendants of the old Oxford who were still to be found in Elizabethan England, though not in the universities.

Yet by a very singular historical misunderstanding the Aristotelianism which Bruno encountered in England has been assumed to be a 'medieval' survival against which he pitted his 'modernity'.

Bruno thus comes before us as truly a 'philosopher of the Renaissance' and truly a humanist in the sense that he accepts and uses every new source of knowledge, but at the same time he is the determined opponent of a certain shallower type of Renaissance humanism which deprecated the old sources of knowledge because they were 'old fashioned', 'barbarous', or 'unclassical' (to which terms of reproach the Puritan Aristotelian party at Oxford would add 'Papist'). In this matter his attitude is very like that of Pico della Mirandola.<sup>45</sup> Bruno's attack on Tudor Oxford repeats the gist of what Pico had said a century earlier in his letter to Ermolao Barbaro. Barbaro had reproached Pico for having devoted so many years of his life to the perusal of 'barbarous' scholastic tomes. Pico's reply, written in 1485, is a defence of the medieval philosophers. 'You have expressed regret', he says,

that I meantime should have lost in the studies of Thomas Aquinas, John Scotus, Albertus Magnus, and Averrhoes the best years of my life — those long, laborious vigils wherein I might perchance have made myself of some avail in polite scholarship. The thought occurred to me, by way of consolation, if some of them could come to life again, whether men so powerful in argument might not find sound reasons for their own cause; whether one among them, more eloquent than Paul, might not defend, in terms as free as possible from barbarism, their barbarous style, speaking perchance after this fashion: We have lived illustrious, friend Ermolao, and to posterity shall live, not in the schools of the grammarians and teaching-places of young minds,<sup>46</sup> but in the company of the philosophers, conclaves of sages, where the questions for debate are not concerning the mother of Andromache or the sons of Niobe and such light trifles, but of things human and divine; in the contemplation, investigation, and analysis whereof we have been so subtle, searching and eager that we may sometimes have seemed to be too scrupulous and captious,

if indeed it be possible to be too curious or fastidious in seeking after truth. Let him who accuses us of dullness, prove by experience whether we barbarians have not the god of eloquence in our hearts<sup>47</sup> rather than on our lips; whether, if the faculty of ornamented speech be lacking, we have wanted wisdom: and to trick out wisdom with ornaments may be more a crime than to show it in uncultured rudeness.<sup>48</sup>

A hundred years had passed since Pico wrote those words, and during that time the satire of the humanists against the 'barbarism' of the old learning had been used in England to supplement Protestant prejudice against the old religion. Put into action, this resulted in the scenes during the reign of Edward VI when hooligans did their best to destroy the intellectual treasures of Oxford and called their bonfires 'the funeral of Scotus and the Scotists'. The gap left by these upheavals was filled over by a superficial layer of eloquence; and so Bruno's satire on the 'doctors of grammar' of the new Oxford is really Pico's satire repeated after, instead of before, the event.

The influence of Florentine neo-Platonism is as strong upon Bruno's philosophy as is the medieval influence. One might say that his visit to England strengthened a re-emergence of the genuine English Renaissance — that adaptation of humanist Platonism to the medieval tradition which had been begun by Sir Thomas More and his friends, who were great admirers of Pico and Ficino, but which had afterwards pursued its course outside the universities. And in this tradition, which was preserved amongst the scientist-philosophers of the Tudor period, a simpler style of writing prevailed than that which the university grammarians favoured. Mr Johnson indicates that the Tudor scientists wrote an English style the force and simplicity of which runs back through Sir Thomas More to pre-Reformation devotional literature.<sup>49</sup> On this ground, therefore, Bruno's defence of philosophical simplicity of language would have been welcome in certain circles in England.

Some of the Platonic imagery in which Bruno couches this defence recalls that used by Pico. Pico remarks in the letter to Barbaro that it is as foolish to judge a philosopher by his style alone as it would be to complain of Socrates because 'his shoe is loose, his coat unbuttoned, or his nails uncared for'.<sup>50</sup> When Bruno, the philosopher, confronts Torquato and Nundinio, the grammarians, there is a marked difference between his appearance and theirs. They were attired in long gowns and in velvet; Torquato wore gold

chains round his neck, and Nundinio's fingers were so loaded with rings that he looked like 'a very rich jeweller'.<sup>51</sup> Their names express their wealth, 'Torquato' being so called from his gold neck-chain (*torques*), whilst 'Nundinio' (from *nundinae* – market day)<sup>52</sup> exudes mercantile opulence. The Nolan, on the other hand, is carelessly dressed, and when things were not going well for Torquato in the philosophical argument the grammarian doctor restored his self-confidence by looking down at his gold chain and then gazing pointedly 'at the Nolan's chest, where there may have been a button missing'.<sup>53</sup> This contrast between the dress of the central figures in the picture expresses in symbolic form the theme of the contrast between a paucity of ideas clothed in elaborate rhetoric, and philosophical depth formulated in unpretentious language – that is to say, the theme of 'grammar' versus 'philosophy'.<sup>54</sup> And it is not only wealth and poverty of language which are involved in this contrast. There is also an implied rebuke of the humanist rhetorician who uses his eloquence to gain worldly wealth and worldly position instead of seeking out Truth for her own sake in a spirit of 'non-attachment',<sup>55</sup> or of disinterested love of philosophy.

Our study of Bruno and Oxford may suggest that to view this extraordinary man as a 'philosopher of the Renaissance' in the sense of one who was in revolt from medievalism in the name of 'modern science' may possibly be a distortion of his true place in the history of thought. Rather, perhaps, does he stand with Pico della Mirandola as one who, whilst welcoming every new avenue to truth which the Renaissance opened out, was preserved by the depth and seriousness of his nature from some Renaissance errors, such as that facile complacency with which a certain type of humanist discarded the heritage of the medieval past. And to English 'philosophers' his Copernican philosophy would have appeared, not as something entirely alien, but as a modern development of a Platonic tradition with which their own past history from Bede to More had familiarized them.



## THE RELIGIOUS POLICY OF GIORDANO BRUNO

THE DIALOGUES OF Giordano Bruno's *Cena de le ceneri* (1584)<sup>1</sup> purport to describe how Bruno and two companions went through the streets of London from the French embassy, where he lodged, to the house of Sir Fulke Greville where he attended a supper party at which he disputed with two Oxford doctors concerning his Copernican philosophy. Sir Fulke Greville and his courtly friends, amongst whom was probably Sir Philip Sidney, seem to encourage Bruno to pour contempt on the pedantry of the Oxford doctors. As I suggested in an earlier article,<sup>2</sup> the courtiers who listened with sympathy to Bruno were in contact, through Dee and others, with the older English philosophical tradition which was carried on throughout the Tudor period, though in unofficial channels. In circles where this older tradition was preserved, the Copernican theory was well known and was thought of in the way in which Bruno thought of it — namely as a re-emergence of ancient Pythagorean and mystical truth.

The neo-Pythagorean character of English Copernicanism (a movement which was thoroughly established long before the time of Bruno's visit to England) and its association with mystical aspirations towards the Infinite can be clearly seen in the first diagrammatic representation of the Copernican theory to be published in England.<sup>3</sup> Bruno's mystical Copernicanism would thus have seemed to his English auditors more in line with the older tradition<sup>4</sup> than was the grammarian Aristotelianism of the doctors of the new Protestant Oxford. And when discussing the attack

which he had made on Oxford Bruno makes it perfectly clear that it was the 'pedantry' of the new Oxford which he disliked so much and which he compares unfavourably with the philosophical tradition of pre-Reformation Oxford. He admires, he says, the metaphysics of the old friars who went 'far beyond their lord and master Aristotle' much more than the Ciceronian eloquence of the new Oxford doctors who despise their predecessors.<sup>5</sup>

Is it then as a secular philosopher, standing apart from purely religious issues, that Bruno celebrates the Pythagoro-Copernican Truth which Time is bringing once more to light? The passage quoted in the earlier article proved that from the philosophical point of view Bruno preferred the old Catholic order in England to the new Protestant order; we have now to quote passages illustrating his attitude to the change from the moral, theological, and mystical points of view.

When in Paris once more after his visit to England, Bruno told the librarian of the Abbey of St Victor that he detested the heretics of France and England because their emphasis on justification by faith lessened the importance of good works; this he considered subversive of morality and also unchristian, 'car toute la chrestienté tend à bien vivre'.<sup>6</sup> He had already put forth this view very fully in *Lo spaccio della bestia trionfante*, published in 1584 in England and dedicated to Sidney:

Momus added: — 'It will suffice to put an end to this rascally sect of pedants, who without doing good according to the divine and natural law, esteem themselves, and would be esteemed by others to be religious persons acceptable to the gods; and they say that doing good is good and doing evil is evil; but that it is not through the good that is done or the evil that is not done that one becomes worthy and acceptable to the gods, but through believing and hoping according to their catechism. Judge, O gods, whether there has ever been such open ribaldry as this in the world.'<sup>7</sup>

This disapproval is not only formulated in the abstract; it is applied to the concrete case of the results (as Bruno sees them) of putting a one-sided interpretation of this doctrine into practice in England. The 'pedants' are further described thus:

Whilst no one works for them, and they work for no one (for they do no other work except to speak evil of works), yet they

live on the works of others who worked for others beside them, and who for others instituted temples, chapels, inns,<sup>8</sup> hospitals, colleges, and universities; wherefore they are open robbers and occupiers of the hereditary goods of others; who, if not perfect nor as good as they ought to be, yet will not be<sup>9</sup> (as these men are) perverse and pernicious to the world; but rather necessary to the commonwealth, skilled in the speculative sciences, careful of morality, solicitous for increasing zeal and care for helping one another and maintaining society (for which all laws are ordained) by proposing certain rewards to well doers and threatening criminals with certain punishments.<sup>10</sup>

These words must apply to the changes in the social fabric which the English Reformation had brought about. And in a later passage he again expatiates on this theme. Jove orders Judgment to enquire into the behaviour of these 'grammarians who in our times flourish all over Europe':

Let him see what success they have, and what customs they arouse and provoke in others as to that which concerns the acts of justice and mercy, and the conservation and increase of the public good; let him enquire whether through their doctrine and rule academies, universities, temples, hospitals, colleges, schools and places of discipline and art are raised; or whether, where these are to be found, they are not the same and endowed with the same faculties as they were before the advent of these men and their appearance among the peoples. Next, whether by their care these things are augmented, or whether by their negligence they are diminished, brought to ruin, dissolved and dispersed. Also whether they are occupiers of the goods of others, or enlargers of their own goods; and finally whether those who take their part, increase and establish the public good, as did their predecessors who were of an opposite way of thinking,<sup>11</sup> or whether they unite with these men to dissipate, squander and devour it, and, whilst they discourage works, extinguish all zeal both to perform new works and to conserve old ones.<sup>12</sup>

From this it is clear that Bruno prefers the older English order to the new on moral and social, as well as on philosophical, grounds. Even if not quite perfect, the men who established universities, hospitals



and other places of discipline in England are yet greatly to be preferred to those who have dispossessed them. This passage forms a pendant to the one in the *Causa* where the pre-Reformation philosophers, 'although their work is of uneven value',<sup>13</sup> are preferred to the modern grammarians who despise their predecessors. There can be no doubt, therefore, that Bruno's satire on 'grammarian pedantry' is not restricted to philosophical illiberalism but is intended also to include strong deprecation of what seems to him the moral blindness of the new order.

Justification by faith is not the only theological problem of engrossing contemporary interest which is raised by Bruno in the *Spaccio*. He also touches, in the course of a discussion of Egyptian rites and Egyptian wisdom, upon the question of the interpretation of the Sacrament:

'... for as the divinity descends in a certain manner inasmuch as it communicates itself to nature, so there is an ascent made to the divinity by nature, and so through the light which shines in natural things one mounts upward to the life which presides over them.' 'What you say is true,' replied Momus: 'for in truth I see how these wise men by these means were able to make the gods familiar, affable, and domestic among them, who [i.e. the gods] by the words which they sent forth out of statues gave them counsels, doctrines, divinations and superhuman institutions; whence with magic and divine rites they rose to the height of the divinity by that same scale of nature through which the divinity descends even to the smallest things by the communication of itself. But what seems to be deplorable is that I see some senseless and stupid idolaters who are as far from imitating the excellency of the Egyptian cult as the shadow is from equalling the nobility of the body, who seek for the divinity, of which they have no right notion, in the excrements of dead and inanimate things, and who withal not only mock those divine and far-seeing worshippers but also us, by whom we are reported beasts. And what is worse they triumph to see their foolish rites in so much reputation, whilst those of others are entirely vanished and cancelled.' 'Do not let this trouble you, Momus,' said Isis, 'for fate has ordained a vicissitude of light and darkness.' 'But the evil is,' replied Momus, 'that they hold for certain that they are in the light.' And Isis added that the darkness would not be darkness to them, if they could recognize it as such.<sup>14</sup>

The pre-Reformation Catholic rites are here interpreted as types of very ancient or Egyptian truth.<sup>15</sup> The new 'foolish rites' of the Protestants have obscured this truth, although they 'hold for certain' that it is they who are 'in the light'.

On the question of the Sacrament it is clear that Bruno will have nothing to do with that view which sees it as a thing dead in itself and merely the outward sign of spiritual truth. To him it is in itself divine and a means of communication with immanent Divinity. From the Protestant standpoint his attitude to the Sacrament is 'magical' and 'superstitious', and he even commends the old shrines where words of divination were heard 'out of statues'.

To Bruno's defence of pre-Reformation philosophy we have now added these vindications of pre-Reformation good works and pre-Reformation rites. But last and most important of all is his fervent advocacy of mystical 'furor', or 'enthusiasm'. This is really the basic theme of all his writings, but the following passage from the dedication to Sir Philip Sidney of *De gli eroici furori* may be selected as one of its clearer manifestations:

these 'heroic enthusiasms' aim at a heroic subject and object, and therefore they must not be esteemed as vulgar and natural loves, any more than dolphins are to be seen perching on the trees of the forest or wild boars lurking beneath the rocks of the sea. In order to clear away any such suspicion I thought at first of giving this book a title similar to that of Solomon's, which, under colour of ordinary loves and affections, contains similar divine and heroic enthusiasms, as the mystical and cabalistic doctors interpret; I wished, to say the truth, to have called it a Canticle. But I refrained from doing this for various reasons, of which I will mention two only. One, the fear which I have conceived of the rigorous severity of certain Pharisees who might consider me profane for usurping in my natural and physical discourse those titles of sacred and supernatural which they — most wicked and ribald ministers — usurp with unspeakable presumption in calling themselves sacred, saints, divine orators, sons of God, priests, kings.<sup>16</sup>

That is to say, he tells Sidney that he is putting his mystical enthusiasms in the form of profane love poetry partly in order to disguise them from possible disapproval.<sup>17</sup> That the 'Pharisees' represent that new order of things in England which Bruno so much detested will be quite clear if this passage is compared with the

description in the *Spaccio* of the new Pedants or Protestants who despise good works, whilst living on the works of their predecessors, and who are there referred to as calling themselves 'kings of heaven and sons of the gods' — the very expressions applied here to the 'Pharisees'.<sup>18</sup> The blindness of the 'pedants', the darkness in which they live, is thus also, and indeed primarily, a lack of mystical insight, shown nowhere more clearly than in the coldness of their hearts.

It is now becoming clear that not only is Bruno's argument religious as well as philosophical in character but that the philosophical argument itself constantly translates into a religious argument. Aristotelian pedants who despise the new Copernican philosophy are not merely persons who are intellectually limited. Their spiritual limitations are still more deplorable. In their moral blindness they under-rate the importance of good works; in their spiritual blindness they misrepresent the Sacrament; in their mystical blindness they are without love. In his terminology 'pedantry' stands for the kind of religion which he dislikes; those who are in the light and who can see (the '*oculati*') are opposed to the spiritually blind who are in darkness. The whole satire on the Aristotelian pedants of Oxford can therefore be read in this sense as well as in the more obvious sense. Take, for instance, the apology which the knights made to Bruno for the behaviour of the Oxford doctors during the Copernican dispute:

The knights who were present besought the Nolan not to take offence at the rudeness and ignorance of their doctors, but rather to pity the poverty of this country which is widowed of good learning in the fields of philosophy and pure mathematics, concerning which all are so blind that asses like these are able to pass themselves off as seers (*oculati*) holding up their fool's bladders as though they were lanterns of light.<sup>19</sup>

This does apply to the decay of philosophy and mathematics at Oxford since the Reformation, but when we remember that those who followed the Egypto-Catholic cult, now cancelled by those who believe that they are in the light, are also called '*oculati*' (divine and far-seeing worshippers)<sup>20</sup> the conclusion seems unavoidable that it has another reference as well.

It must obviously be a profound misunderstanding of Bruno's whole outlook to suppose that the Copernican theory meant to him an



'advance' in scientific knowledge upon which he built a philosophy detached from religious influences and fundamentally antagonistic to medieval tradition. Bruno's Copernicanism should be re-examined in relation to its historical context, as now understood, and when this is done it will be noticed that in the *Cena de le ceneri* the subject of the Supper is as important as the subject of the Copernican theory. The dedication to the French ambassador opens with it:

Behold now, Signor, you have here before you, not a nectarial feast of Jove the Thunderer, signifying majesty;<sup>21</sup> not a protoplastic meal, typifying the fall of man; not the banquet of Ahasuerus, which stands for mystery; nor that of Lucullus, for wealth; nor that of Lycaon, for sacrilege; nor that of Thyestes, for tragedy; nor that of Tantalus, for torment; nor that of Plato, for philosophy; nor that of Diogenes, for poverty; nor that of the leeches, for a trifle; nor that of the archpriest of Pogliano, for a satire; nor that of Bonifacio, the candle-bearer, for a comedy.<sup>22</sup>

This banquet, then, cannot be defined; or rather it can only be defined negatively by stating what it is not. The Supper is a mystical Supper which escapes all rational definition.

In the next paragraph the question is asked: 'What is the object of this meal, this Supper?' The reply, although apparently confused, is not impossible to understand.

It is not a study of the mind and effects<sup>23</sup> of that most noble and well-bred gentleman Sir Fulke Greville in whose honourable house it took place; nor of the honourable manners of those most polite gentlemen who were there present as spectators and auditors; but an attempt to see how far nature could go in the creation of two fantastic scarecrows, two dream-like shadows of men, two quartan fevers. And while sifting the historical meaning of this, which is afterwards chewed over in the mind with enjoyment, topographical matters are dilated upon as suited to the subject, also geographical, rational and moral reasonings; likewise other speculations, some metaphysical, some mathematical, some natural.<sup>24</sup>

These two creatures are, of course, Torquato and Nundinio, the two Oxford Protestant Aristotelians with whom he was invited to dispute. Bruno is here telling the ambassador that the supper party

story was designed to expose these two men, the other speculations being incidental and secondary to this object, although connected with it.

On the way to the Supper, Bruno and his companions meet with many inconveniences, including a danger of being informed against and shut up in prison.<sup>25</sup> When they do finally arrive at the house, they enter and go upstairs to an upper room.<sup>26</sup> The Supper had already begun; but it differed from other gatherings which Bruno had witnessed in England.

Fortunately I was on this occasion spared seeing the ceremony of that cup or glass which it is customary to pass from hand to hand at table, in no regular order but from left to right, up or down, across and back, in rustic confusion.<sup>27</sup>

There follows a further description of what has been assumed to be the barbarity of the English custom of the loving cup as it appeared to a refined Italian. But the real meaning is undoubtedly a satire on Protestant rites. The present ceremony, it is stated twice,<sup>28</sup> was not of this barbarous nature. The Supper was therefore not a Protestant rite.<sup>29</sup>

After Supper the dispute with Torquato and Nundinio concerning the Copernican theory begins. Torquato maintains that Copernicus did not intend to affirm that the earth really and in fact moves, but used the theory merely as a basis for his computations. As Teofilo (who represents Bruno) points out, Torquato derived this argument from Osiander's preface to Copernicus's book, in which it is said that the theory is put forward, not as being literally true, but as an hypothesis for calculations.

You must know that this remark came from Doctor Torquato, who, although I can well believe that he had turned over all the pages of Copernicus's book, had grasped nothing of its contents except the name of the author, the title, the printer's name, the place and date of publication, and the number of quires and leaves. Being not entirely ignorant of grammar he had also been able to understand a certain introductory Epistle which some ignorant, presumptuous ass or other had stuck in.<sup>30</sup> (There follows a quotation from Osiander's preface.)

Torquato, the pedant doctor, the man with the literal mind, will not believe that there is really movement in the earth. He has

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understood only the 'grammarians' preface, and not the subject itself. When Copernicus said that the earth moves, he argues, he meant this as an external convention, not as a living truth.

Remembering the sense in which Bruno has often used 'grammarians pedant' and that this argument as to whether or not there is really motion in the earth comes immediately after the Supper, let us now quote again the passage on 'rites' in the *Spaccio*:

But what seems to me deplorable is that I see some senseless and stupid idolaters who are as far from imitating the excellency of the Egyptian cult as the shadow is from equalling the nobility of the body, who seek for the divinity . . . in the excrements of dead and inanimate things, and who withal not only mock those divine and farseeing worshippers but also us, by whom we are reported beasts. And what is worse they triumph to see their foolish rites in so much reputation, whilst those of others are entirely vanished and cancelled.<sup>31</sup>

Is earth a dead and inanimate thing, or does it move? Is the Sacrament of the Altar a dead external sign, or does it really contain the divine life? These two problems are inseparably connected in Bruno's mind.

That the argument about the Copernican theory is also an argument about the Mass can, I think, be finally demonstrated by the following quotation. Bruno (Teofilo) has been unfolding once more his Copernican philosophy which Torquato, being unable to reply with a philosophical argument, counters with an irrelevant question:

With a countenance of august majesty, as though he would now unfold a most crushing demonstration, Torquato enquired:

'Ubi est aux solis?'

The Nolan replied that he could imagine it to be wherever he pleased and conclude what he wished because the apogee changes its position and is not always in the same degree of the ecliptic; and he cannot see why this question was asked. Torquato made the same query again, as though the Nolan had been unable to answer it. The latter replied by enquiring:



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'Quot sunt sacramenta ecclesiae? Est circa vigesimum Cancri, et oppositum circa decimum vel centesimum Capricorni or above the steeple of St Paul's.'<sup>32</sup>

This string of irrelevant questions, so Smitho is told, was to demonstrate that Torquato and Nundinio did not know what they were talking about and were merely firing off disconnected queries in the hope of nonplussing the Nolan. But this apparently meaningless interjection really indicates, quite openly at last, the real subject of the dispute, in case the contemporary English reader should have been so dense as not yet to have grasped it. 'The Sacraments of the Church . . . Cancer and Capricorn . . . the steeple of St Paul's.' The sun is in Cancer in summer, in Capricorn in winter. Is it summer over the steeple of St Paul's or winter? Are we in the warmth and light of summer or in the darkness and cold of winter?<sup>33</sup>

It would be a mistake to suppose that the dispute on the real truth of the Copernican theory is merely a disguise for the dispute on the Sacrament (although the element of disguise did enter into Bruno's calculations as we know from the *Eroici furori* dedication).<sup>34</sup> The astronomical dispute 'translates' into the theological dispute. In Pico della Mirandola's philosophy, the principle of universal animation in the universe is correlated to his interpretation of the Sacrament.<sup>35</sup> As the life of God animates all creation, so the spirit of God animates the Sacrament and is actually present in it and the object of worship in it. Pico's view of the Sacrament conflicted with some scholastic interpretations, and it conflicted still more with those forms of Protestant interpretation, evolved after his time, which went to extremes of 'rationalism' in order to avoid any suspicion of Popish 'magic' and 'superstition'. Bruno's insistence that the earth really moves, that the divine breath of life is really in it, that the Copernican theory is no mere empty formula, is a 'translation' into philosophical terms of his highly mystical, indeed magical, view of the Sacrament. His contempt for the 'grammarians' Torquato and Osiander, who will have it that the earth's movement is no more than a mathematical convention, is a translation of his contempt for those who 'look for divinity' in the 'excrements of dead and inanimate things'.

Bruno hoped that by emphasizing the mystical rather than the dogmatic side of Catholic tradition he would be able to influence people in Protestant countries towards a return to some kind of

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Catholic union. In his conversation with the librarian of the Abbey of St Victor he expressed great admiration for St Thomas Aquinas himself, but added that he disapproved of scholastic subtleties concerning the Sacrament,

of which [i.e. 'les subtilitez'] he says that St Peter and St Paul knew nothing, knowing only that *hoc est corpus meum*. He says that the troubles in religion will be easily removed when these questions are taken away, and says that he hopes there will soon be an end of them. But above all he detests the heretics of France and England, because they despise good works.<sup>36</sup>

These remarks to the librarian of the abbey which was the custodian of the tradition of the Victorines (and who reports them in his diary without any expression of disapproval) represent, I believe, the exact truth as to Bruno's attitude. They correspond with what he had been saying in England. He hoped that what he believed to be the Copernican weakening of rationalism would loosen rigidity on the Catholic side, and provide a basis for an all-embracing rite in which Protestants and Catholics could join and forget their differences. This tallies with the passage in *De la causa* where he explains that in the Supper described in the *Cena* (which was a 'spiritual meal' as well as a 'material meal') he had tried to include something to please everyone.<sup>37</sup> Bruno was undoubtedly trying to find a version of Catholic Truth which should do away with the 'troubles in religion'.

In Protestant countries he appealed to the intelligentsia, to people like Sir Philip Sidney and Sir Fulke Greville whom he distinguishes entirely from the 'barbarian doctors' whom he met at the supper party. The philosophical groups in England who continued and expanded, under the influence of Doctor Dee, the pre-Reformation philosophical tradition (and amongst whom the Copernican theory was well-known)<sup>38</sup> would have been particularly interested in his attitude, and amongst them he perhaps hoped to form a 'politique' group – corresponding to the 'politiques' of France – formed of men who, whilst culturally and emotionally in sympathy with many aspects of the older tradition – wished above all things, in France, to stop the civil wars and, in England, to prevent their outbreak:

I see clearly that we are all born ignorant, and willing to acknowledge our ignorance; then, as we grow, we are brought

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up in the discipline and habits of our house, and we hear disapproval of the laws, rites, faith and manners of our adversaries and of those who are different from ourselves, whilst they hear the same about us and our affairs. Thus just as there are planted in us by the natural forces of breeding the roots of zeal for our own ways, so in others a devotion to their own different customs is instilled. Thence it easily becomes axiomatic that we should esteem the oppression, slaughter, conquest and assassination of the enemies of our faith as a pleasing sacrifice to the gods; as they do also, when they have done the like by us.<sup>39</sup>

Bruno's campaign in England of satire on Puritan extremes, combined with conciliation of the more 'politique' elements, was designed as an attempt at weakening the hard edges of these dangerous divisions by philosophical mollification. 'How can bigoted persons be corrected?' asks Smitho:

By weakening with arguments their conviction that they know, and in a subtly persuasive manner drawing them away as much as possible from their bigotry.<sup>40</sup>

That he believed himself to have a mission to perform in Protestant countries is suggested by the passage where Torquato quotes Erasmus's adage 'Anticyram navigat'.<sup>41</sup> To set sail for Anticyra, where grew the herb hellebore which was a cure for madness, was to be mad oneself. Torquato by using this proverb hints that such is Bruno's condition. But to the Philosopher it is the Pedant who seems mad and he turns the insult in this way:

I believe he was prophesying (although he understood not his own prophecy) that the Nolan was to make a provision of hellebore with which to mend the wits of these barbarous madmen.<sup>42</sup>

This should be compared with Ronsard's address to the leaders of the Protestant sects:

Le peuple qui vous suit est tout empoisonné;  
Il a tant le cerveau de sectes estonné,  
Que toute le rheubarbe et *toute l'anticyre*  
Ne luy sçauroyent guarir sa verve qui empire.<sup>43</sup>



Like Ronsard (with whom he has much in common) Bruno longs to find some healing herb to soothe the madness of the sectaries and to draw Europe back into her ancient unity.

The healing herb which he tried to use was philosophical persuasion. He employed the philosophical and poetic 'translations' of Truth on the surface of his works, leaving the theological and religious translation half (but only half) submerged. His object in doing this was twofold. First, in the books published in England he had to use a certain amount of disguise because his Truth was the opposite of the Truth then officially in power in this country. Second, the philosophical approach was a way of 'reaching' heretics and mollifying their opinions without frightening them at the outset with religious arguments. He explained this to the inquisitors when he told them that he had always talked of philosophy with Calvinists, Lutherans, and heretics generally, avoiding interference with their other opinions, and for this reason he had been received by them.<sup>44</sup> But the underlying mystical 'translation' of Truth could be pieced together by the careful reader of his works.

A right understanding of the historical conditions under which Bruno wrote in England is thus not merely a matter of biographical interest. It is of absolutely vital importance for the understanding of his mind. To see him as the builder of a purely 'secular' philosophy is to commit a fundamental error. So far as the works published in England are concerned, it may be definitely stated that their surface 'secular' colouring is due to a deliberate policy of leaving the religious 'translation' of the Copernican philosophy to be guessed at rather than openly expressed.

Was Bruno alone in adopting his extremely interesting attitude or was there any body of opinion in Europe at that time with similar views? A glance at the political situation will help us here.

The political head of the official Catholic side in the great controversy which was convulsing Western civilization was Spain, aiming at European hegemony. Against Spain were the Protestant powers, including England. England was not yet at war with Spain but in certain parts of Europe the ideological blocs had already come to blows and civil war was raging in France. The situation in France was complicated. There were the extreme Huguenots, determined to fight to the end. There were the extreme Catholics, equally determined that the League should triumph, and these were supported by Spain whose interest it was to keep France weak. The Guises, backed by Spain, took upon themselves the role of Catholic

champions, hoping eventually to seize the crown of France for their family. Their successes were fraught with great danger for England where they were also plotting to put their kinswoman Mary, Queen of Scots upon the throne. Between militant Protestantism and militant Hispano-Guise Catholicism stood the unfortunate rightful king of France, Henri III.

On his mother's side a scion of the house of Medici, the policy of apparent vacillation which Henri de Valois pursued in the terrible situation in which he found himself was really a policy of conciliation. He had every reason to mistrust the Guises, who, under colour of the Catholic League, were working to deprive him of his throne. He detested the civil wars which were destroying his kingdom. And, whilst fervently Catholic in a somewhat mysterious and 'enthusiastic' manner, he pursued a policy of friendship with the heretic Elizabeth and with the heretic Henry of Navarre which earned him the hatred of the extremists amongst his subjects – a hatred which was carefully worked upon for their own purposes by the propagandists of the League.<sup>45</sup> On the other hand there was a growing body of moderate French Catholic opinion which, realizing whither the League was tending, supported Henri as the lawful king of France. This party of the 'politiques' looked back to the traditions of Gallican Catholicism and viewed the preponderance of Spanish influence in Rome with disfavour.

In 1584 Henri's difficulties were increased by the death of his brother the Duke of Anjou, by which Henry of Navarre, the Protestant chief, became his heir. This exaggerated the activities of the Leaguers and Henri, feeling himself more and more threatened by Spain, turned still more towards Elizabeth and towards Navarre. He hoped that Navarre would save France by hearing a Mass, as he eventually did. How it would have cleared the air for Henri if Elizabeth also had heard a Mass and joined a block of Catholic 'politiques', if Paris and Oxford could renew their old collaboration, if Anglican Catholicism could be revived and join Gallican Catholicism in an attempt to counteract the alarming tendencies of Hispano-Papalism!

The English government had at one time suspected the French embassy in London of being the centre of plotting in favour of Mary, Queen of Scots. According to Mr Conyers Read, it was the Throgmorton Plot (1583) which proved that it was Mendoza, the Spanish ambassador, and not Mauvissière, the French ambassador, who was hatching the plots. 'The Duke of Guise and his confederates had decided at the very first not to admit the King of

France into their confidence and they consequently could make no use of his ambassador in England.<sup>46</sup> Henri's policy towards England was not one of subversive intrigue in the interests of Spain. The authors of such intrigues were his enemies as much as they were Elizabeth's. His method was to work for conciliation. In 1584 the English ambassador in Paris explained to Walsingham the policy which Henri had instructed Mauvissière to pursue in England. This was to work for conciliating the Scottish and English queens and for an alliance between England, Scotland and France.<sup>47</sup>

Now, of the rather meagre supply of facts concerning Bruno's biography there is one which is well authenticated, namely that there was some close connection between him and Henri III. His *De umbris idearum*, published in Paris in 1582, was dedicated to that monarch. He had personal interviews with Henri, who was impressed by his attainments,<sup>48</sup> and it was through royal favour that he was given an extraordinary readership in the University of Paris.<sup>49</sup> When he came into England he brought with him a letter of introduction from the French king to Mauvissière,<sup>50</sup> his ambassador, and during the two years or so of his stay in England he lived at the embassy in London, returning to France with the embassy suite in 1586.<sup>51</sup> The question, I think, therefore naturally arises as to whether the works which Bruno published in England during these very critical years immediately preceding the Armada may not have been 'inspired' from the political point of view, as well as from the religious and philosophical points of view. Was he sent here with the idea of 'reaching' both submerged Catholic and moderate Protestant opinion among intellectuals in order to induce leaders of thought to influence their government towards a policy which, whilst resisting Spanish aggression, was yet a supra-national policy of Catholic union, appealing to the old close connections between the universities of Paris and Oxford and to the ancient traditions of European thought and feeling?

Henri III chose as his device an emblem consisting of three crowns with the motto '*manet ultima coelo*'.<sup>52</sup> Of these three crowns, two referred to the two earthly kingdoms over which he was sovereign, France and Poland, whilst the third or last was the spiritual crown which he hoped remained for him in heaven. *Manet ultima coelo*. His enemies of the League, despising him as a weakling for his too friendly attitude towards heretics both within and without his domains and for (in their opinion) feebly wasting his time over doubtful philosophical and religious interests when he should have been fighting for the Cause, turned this into '*manet*



*ultima claustra.*<sup>53</sup> The weak king was fit only for the cloister, and the exhausted line of the Valois must make way for a new Guise dynasty which would give full and unhesitating support to the Pope. Henri himself, however, perhaps thought of his device in an ideal sense, remembering the crown which Dante saw in heaven<sup>54</sup> reserved for the Emperor Henry VII upon whom the poet based his hopes of reform and reconciliation.

At the end of the *Spaccio della bestia trionfante* Bruno shows himself very clearly aware of all these currents:

Then Apollo asked: 'What will become of this Tiara? For whom is this Crown destined? What are we to do with it?' 'That, that,' said Jove, 'is the crown which, by the high decree of fate, by the instinct of the holy spirit, and as a reward of high merit, awaits the invincible Henri III, king of the magnanimous, powerful and warlike realm of France; which he promises himself after the crown of France and the crown of Poland, as he testified at the beginning of his reign when he ordained his celebrated device, the body of which consists of two lower crowns surmounted by another more eminent and more beautiful, and to it is added as a soul the motto: *Tertia coelo manet*. This most Christian king, holy, religious, and pure, may securely say: *Tertia coelo manet*, for he well knows that it is written: Blessed are the peacemakers, blessed are the pure in heart, for theirs is the kingdom of heaven. He loves peace, he preserves his contented people as much as possible in tranquillity and devotion; he is not pleased with the noisy uproar of martial instruments which administer to the blind acquisition of the unstable tyrannies and principalities of the earth; but with all manner of justice and sanctity which show the straight road to the eternal kingdom. Let not the bold, tempestuous and turbulent spirits amongst those who are his subjects hope that whilst he lives (the tranquillity of whose spirit does not encourage warlike fury) he will give assistance to those who, not in vain, seek to disturb the peace of other countries on the pretext of acquiring other crowns and other sceptres; for *Tertia coelo manet*. In vain shall the rebel French forces against his will disturb the boundaries and coasts of others; for by no proposal of unstable counsels, by no hope of changeable fortune, by no occasion of external administrations or suffrages will he be induced, on a pretence of investing him with mantles and adorning him with crowns,

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to give up (otherwise than by force of necessity) the blessed care of tranquillity of spirit, for he is more liberal of his own goods than greedy for those of others. Let others, therefore, make attempts on the vacant kingdom of Portugal; let others be solicitous over the Belgian dominion. Why should you break your heads and busy your brains, you other princes? Why should you fear and suspect that other princes and kings will come to dominate your forces and rob you of your crowns? *Tertia coelo manet*. Let the crown remain then' [Jove concluded], 'awaiting him who shall be worthy of so magnificent a possession.'<sup>55</sup>

Bruno is here offering to Englishmen (and particularly, one supposes, to Sir Philip Sidney to whom the *Spaccio* is dedicated) the friendship of a Catholic king who disclaims the ambitions of Spain and the Catholic League, with which in England the Pope was suspected of being an accomplice, who renounces all aggressive projects, whether of open war or of subversive intrigue, against other states. Those turbulent spirits amongst his subjects who follow the Spanish-Guise faction are as much an enemy of the French king as they are of the English queen. Let us transcend these broils, says Bruno in Henri's name, and return to the old spiritual union of Europe. He who awaits a third crown in heaven does not concern himself with nationalist wars nor seek to undermine the governments of other countries.

In accordance with this method of approach Bruno (in the *Cena*) speaks with great admiration of the learning and virtues of Queen Elizabeth and with respect of Leicester, Walsingham and the members of the English government<sup>56</sup> whom he admires for having maintained peace and order in the country, although surrounded by seas of adversity and danger. Nevertheless, the kind of union which might be possible under the 'third crown in heaven' is a Catholic union, and the prince to whom the crown is awarded cannot tolerate the 'sect of Pedants'. This is clear from another passage in the *Spaccio* where the crown is mentioned:

Next follows the seat of the Northern crown, made of sapphire, enriched with so many shining diamonds, and which makes such a beautiful perspective with four and four, which are eight, burning carbuncles. This, since it was made below and transported hither from thence, seems to me worthy to be presented to some heroic prince who shall have merited it;

therefore let our father consider to whom it should be least unsuitably presented by us. 'Let it remain in heaven,' replied Jove, 'awaiting the time in which it shall be given as a reward to some future invincible arm which with club and fire shall bring back the so much desired peace to miserable, unhappy Europe, crushing the many heads of this worse than Lernean monster, who with multiform heresy spreads the fatal poison which creeps everywhere through her veins with dangerous speed.' Momus added: 'It will suffice to put an end to this dastardly sect of pedants.'<sup>57</sup>

Immediately upon this follow the severe strictures on the results of the English Reformation which have already been quoted.<sup>58</sup> Henri's and Bruno's appeal is thus to Englishmen who are dissatisfied with the changes which have taken place in universities, colleges, hospitals, since good works were discredited, who do not admire the Aristotelians of the new Oxford, who prefer the ancient rites to the new rites, who regret the lack of emphasis upon the contemplative and mystical aspects of religion. By his satire on the Pedants and his praise of their Catholic predecessors it would seem that Bruno is appealing to some body of 'politique' opinion in England corresponding to the Gallican and royalist 'politiques' of France.

The *Cena* is dedicated to Mauvissière, the French ambassador. It opens, as we already know, by the emphasis on the Banquet, on some mystical rite wherein all contraries coincide; it closes with a resounding reference to the monarch whom the ambassador represents:

To you the work is consecrated, who represent in Britain the might of so magnanimous, so great, and so powerful a king who makes the voice of his fame resound from the generous bosom of Europe to the farthest corners of the earth; who, when he roars with anger like a lion in his mountain cave, strikes terror and mortal fear into the other predatory powers of these jungles; and when he is calm and in repose he sends forth such a beam of liberal and courteous love that it warms the neighbouring tropic, heats the frozen Bear, and dissolves the arctic desert which revolves under the eternal sway of proud Bootes.<sup>59</sup>



The rays of this French love would, it was hoped, melt the ice round the heart of the Virgin Queen and her subjects and draw this Northern realm away from the dividing influence of Pedantry back into the 'generous bosom' of Europe. The wooing language here employed reminds one that the king's younger brother, Anjou, was still alive when the *Cena* was written<sup>60</sup> and so the 'French match' for Elizabeth was still a possibility.

Henri III's hopes that Henry of Navarre would 'turn' and save France were eventually fulfilled, though he did not live to see it, but Elizabeth disappointed him. One wonders how many English 'politiques' shared his hopes and his disappointment.

That Henri's middle policy of conciliation had a neo-Platonic philosophical background which was in the tradition of his famous Florentine ancestors is very strongly suggested by what is known of his intellectual interests. He was a reader of Plato, Plotinus, Porphyry, Iamblichus and Proclus.<sup>61</sup> Beneath one of his portraits<sup>62</sup> are inscribed the lines

Peintre afin que ton art imite la Nature  
 Au tableau de ce Roy dont lhoné [*sic*] touche aus Cieux  
 Pein sur son chef Pallas sur ses levres Mercure  
 Mars dessus son visage, et l'Amour dans ses yeux.

As the union of Mars with Venus was a representation of 'one of the chief tenets of Pico's philosophy of mediation'<sup>63</sup> these lines would suggest that Henri thought of himself as a representative of that philosophy. Plenty of other evidence to the same effect could be brought forward. The poetry of Amadis Jamyn, the king's devoted flatterer, is full of such imagery.<sup>64</sup> So also is that of Ronsard who speaks of Henri as one who has joined 'Mars,et Amour',<sup>65</sup> and this idea obviously underlies Bruno's description of the French king as one who can roar with anger, like a lion, and yet send forth beams of love.<sup>66</sup>

Whatever their political and religious enemies may have said of them the poets and learned men always spoke well of the two last Valois kings. And the poetry and philosophy which is typical of Henri III's circle presents the closest analogies with Bruno's point of view. Lack of space prevents any detailed examination of this field, but a few words may be said of a Valois poet, Ronsard, and of a Valois philosopher, Pontus de Tyard, in order to indicate the very great likelihood that what one may perhaps call the French version

of the 'Renaissance encyclopedia' was one of the immediate sources of Bruno's philosophy.

Ronsard's religious views as expressed in his *Discours des misères de ce temps* and *Remonstrance au peuple de France* are very close indeed to those of Bruno, as now understood. There is the same detestation of Protestants on the ground of their destructiveness,<sup>67</sup> ignorance,<sup>68</sup> and barbarism,<sup>69</sup> their contempt for 'works':

Les oeuvres mespriser, et haut louër la foy:  
Voilà tout le sçavoir de vostre belle loy<sup>70</sup>

their inadequate views on the Sacrament:

Tu [Christ] as dit simplement, d'un parler net et franc,  
Prenant le pain et vin: *C'est cy mon corps et sang,*  
Non signe de mon corps; toutefois ces Ministres,  
Ces nouveaux defroquez, apostats et belistres  
Desmentent ton parler . . .<sup>71</sup>

their inability to perform miracles,<sup>72</sup> their lack of love and eagerness for war and fomenting division.<sup>73</sup> There is the same discontent with the Catholic side; he complains that there has been no notable Pope since St Gregory,<sup>74</sup> of the abuses in giving high office in the Church to boys and unsuitable persons,<sup>75</sup> of the excessive wealth of the Church,<sup>76</sup> of the worthlessness of many priests.<sup>77</sup> There is also the same nostalgia for the past:

Il me plaist d'imiter le train de mes ayeux:  
Je croy qu'en Paradis ils vivent à leur aise,  
Encor qu'ils n'ayent suivy ny Calvin ny de Beze<sup>78</sup>

and

O heureuse la gent que la mort fortunée  
A depuis neuf cens ans sous la tumbé emmenée!  
Heureux les peres vieux des bons siecles passez,  
Qui sont sans varier en leur foy trespassez,  
Ains que de tant d'abuz l'Église fust malade!  
Qui n'ouyrent jamais parler d'Oecolampade  
De Zvingle, de Bucer, de Luther, de Calvin.<sup>79</sup>

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If his faith were less firm, he says, the present state of Christianity would tempt him to return to paganism.

La nuict j'adorerais les rayons de la Lune,  
Au matin, le soleil, la lumiere commune,  
L'oeil du monde . . .<sup>80</sup>

His refuge is in his own poetic enthusiasm, in the divine fire which fills his soul:

Tourmenté d'Apollon, qui m'a l'ame eschaufée,  
Je veux, plein de fureur, suivant les pas d'Orfée,  
Rechercher les secrets de Nature et des Cieux.<sup>81</sup>

Ronsard understood the method of 'translating' from one subject into another. This is shown in *Le Bocage royal* where he is describing the philosophical and poetic interests of Henri III. He speaks of the king's devotion to natural philosophy and science,

Il a voulu sçavoir ce que peult la Nature,  
Et de quel pas marchoit la premiere closture  
Du Ciel . . .<sup>82</sup>

and immediately afterwards of his devotion to Apollo and the Muses. We must now ourselves turn from the consideration of one of Henri III's poets, Ronsard, to that of one of his philosophers, Pontus de Tyard.

Pontus de Tyard<sup>83</sup> is chiefly remembered to-day as a minor poet of the 'Pléiade', of which he was one of the founders, and an intimate friend of Ronsard. But in his own time he was an extremely important figure among the leading 'politiques' of France. He was much trusted by Henri III who made him one of his privy counsellors and bishop of Châlon-sur-Saône. The high esteem in which Henri III held him was shared by Henry of Navarre, for when the latter became king and decided to change his religion the bishop of Châlon-sur-Saône was one of those whom he requested to instruct him in the Catholic faith.<sup>84</sup> He was thus a great figure in the world of affairs, and a leading Gallican bishop as well as being a poet among poets and a philosopher among philosophers.

It was Pontus de Tyard who guided those studies of Henri III in natural science of which Ronsard speaks. Jacques Amyot in a letter to Tyard in 1577 says that he is very pleased to hear of 'lhoneste



occupation que prent le roy de vous ouyr discourir de la constitution et mouuement du ciel, et que vous aiez trouué par experience ce qualtre fois ie vous en auois dit touchant la capacité de son entendement, laquelle il tient du roy François, son grand pere, desireux d'apprendre et entendre toutes choses haultes et grandes.'<sup>85</sup>

If we now turn to Pontus de Tyard's scientific and philosophical works in order to discover what kind of 'high and great matters' Henri III learnt from him, an extremely significant fact emerges – namely that Tyard was a student of Copernicus. In the dedication of his *Ephemerides octavae sphaerae*, published in 1562, he speaks of Nicolas Copernicus as the 'restorer' of astronomy,<sup>86</sup> though he is here thinking of him only as a calculator. This dedication opens with a discussion of the active and contemplative lives and of how perfection in the latter is achieved 'non amore solùm, verùm etiam cognitione sublime'.<sup>87</sup> The theme of a spiritual ascent from ignorance and passion to philosophical contemplation is illustrated on the title-page. The man with the ass's ears at the bottom of the page contrasts with the philosophical and contemplative figures at the top.

In the philosophical work by Tyard entitled *Deux Discours de la Nature du Monde et de ses parties*, published in 1578 with a dedication to Henri III, the theory of the movement of the earth which Copernicus' work has brought to the fore is given a very fair hearing, though Tyard himself inclines to the more generally received opinion. The 'labours' of Copernicus are praised<sup>88</sup> whereby he has added to astronomical knowledge; Bruno also speaks thus of Copernicus.<sup>89</sup> The same passage from Copernicus' book is quoted<sup>90</sup> as the one which Bruno quotes<sup>91</sup> and a certain ambiguity of language in Tyard's translation of the sentence in Copernicus describing the movement of the moon with regard to the earth might even have given rise to Bruno's peculiar mistake over this matter.<sup>92</sup> But whilst far from being tied to the authority of Ptolemy, who may, he says, be wrong in many particulars,<sup>93</sup> Tyard keeps to the more usual opinion concerning the immobility of the earth, though so admiring are his references to the 'ingenious demonstrations' and 'exact observations'<sup>94</sup> of Copernicus that it seem to be almost with reluctance that he does so.

Tyard's basis is the Renaissance encyclopedia.<sup>95</sup> In the dedication to the *Deux Discours* it is said that the author herein examines the nature of the world after the manner of Plato in the *Timaeus* and plays the part of 'theologien, mathématicien, et physicien'; not content with exploring all the sciences he also touches on all the

arts, such as painting, music, poetry, medicine, and history. So does Bruno speak of the encyclopedic character of the *Cena* in which 'there is no kind of knowledge of which you have not here some fragment'.<sup>96</sup> As Tyard's dialogues unfold and as one subject after another — mathematics, astrology, geography — appears on the scene and then melts into the next theme into which it is to be 'translated' one is constantly reminded of Bruno's range of subject matter in the *Cena*, Bruno's arguments, Bruno's examples, sometimes almost his very language.

Tyard seems to have been educated at Paris university, and he speaks with great respect of 'nostre escole'. His highly 'eclectic' tendency is perhaps descended from the similar trend encouraged by the revival of Nominalism in Paris in the late fifteenth century.<sup>97</sup> It is possible that further research in late Parisian scholasticism of the sixteenth century might disclose that the Copernican theory was currently discussed in the Collège de Montaigu as another theory of motion to add to Buridan on 'impetus' or Albert of Saxony on earth movements.

The French bishop provides an encyclopedia in which the Copernican theory is given an honourable place; from this it was but one step more to Bruno's position. Tyard (although he attaches great importance to Pythagorean mysticism from the religious point of view)<sup>98</sup> does not seem to confuse Copernicus with Pythagoras, as Bruno does. It was this fusion of Pythagoras with Copernicus in Bruno's mind which made the Copernican theory seem to him a mystical Truth symbolizing the religious, philosophical, and poetic mysticism of the whole school.

The great value of Tyard to the student of Bruno is that he gives open expression to the theological and mystical 'translation' of philosophical Truth which Bruno, for reasons of caution in his dealings with heretics,<sup>99</sup> leaves to be guessed at by the reader. Besides the Philosopher, or 'Curieux', he introduces in his dialogues the theologian, Hieromnine, who adds the religious meaning of the philosophical arguments. For instance, after a physical discussion on the infinity of the universe, the theologian joins in and speaks of Infinity:

Infini (dit Hieromnine) n'est autre chose que Dieu eternal, en infinie prouidence, et infinie éternité, qui a créé et composé ce Monde. . . . Cest infini (adiousta le Curieux) a esté par les premiers Poetes Thëologiens imaginé eternal . . . et l'a ainsi

chanté disertement Pierre de Ronsard en son Hymne de l'Eternité.<sup>100</sup>

This is the Infinite to which Bruno's Truth aspires as she casts off the Aristotelian spheres, breaks through the prison of the turbulent air, and rises from the darkness in which she has been imprisoned to sing in poetry of the heroic enthusiasms of former days.<sup>101</sup>

The same imagery, transferred to a geographical setting, is used in another passage of the *Cena* to suggest that a return to these heights would involve a return to the old collaboration between the philosophers of France and the philosophers of England in Catholic union. There are, says Bruno, 'very high mountains' which reach up into the tranquil part of the atmosphere above the region of the turbulent air:

by very high mountains we do not mean the Alps and the Pyrenees, and such like, but, for example, the whole of France, which is between two seas, the Ocean on the north and the Mediterranean on the south; from which seas towards the Auvergne one mounts upwards all the time, as also from the Alps to the Pyrenees, which were once the summit of an immense mountain. This was broken up by the hand of time (which brings about alterations through the vicissitudes necessary for the renovation of the parts of the earth) and divided into separate ranges, which we call mountains.

From a certain example which Nundinio adduced concerning the mountains of Scotland (where, perhaps, he had been) it was clear that he could not grasp this definition of very high mountains. For the whole of this island of Britain is really a mountain raising its head above the waves of the Ocean, and the highest point in this island should be taken as the summit of this mountain — which summit, if it reaches up into the tranquil part of the air, would prove that this is one of those very high mountains where is the domain of animals perchance more fortunate than ourselves. Alexander Aphrodisaeus speaks so of Mount Olympus, which by the experiment of the ashes of sacrifice is shown to be one of those very high summits which reach up into the air above the confines of the earth and its members.<sup>102</sup>

The ashes of sacrifice were undisturbed on Mount Olympus,<sup>103</sup> proving that this was a mountain which reached up into the



tranquil and windless region far above the 'prison of the turbulent air'. It is a mystical mountain of vision, just as the Ash Wednesday Supper is a mystical rite, indefinable by rational methods. Nundinio, the Oxford Aristotelian pedant, cannot understand this definition of a high mountain. The local mountains of Scotland are as high as he has ever been. (In the year in which the *Cena* was written the Puritans at Oxford were being encouraged to go forward in their designs by certain 'Scotch ministers'.<sup>104</sup>) In France, too, Time, which brings about vicissitudes of destruction and renovation, of light and darkness, has broken up what was once one very high mountain into separate ranges of Huguenots and Leaguers. But if England and France will remember those very high mountains of vision which their fathers in antique times ascended with divine and heroic enthusiasm, the local Aristotelian ranges of pedantic sects into which Time has broken up the high mountains, so that the higher vision cannot be seen, will disappear and France and England will return to Catholic union.

The way to understand the *Cena de le ceneri* is to realize that all the 'geographical, rational and moral reasonings' together with the 'other speculations, some metaphysical, some mathematical, some natural' are indeed connected with the 'historical meaning' of the two Oxford doctors, as Bruno himself explained in the dedication.<sup>105</sup>

Ignoring the conditions under which Bruno wrote in England and unaware of the fact (which greater familiarity with his Latin mnemotechnical works would have brought out) that in his hands every idea — whether philosophical, astronomical, or lyrical — becomes an 'image' of mystical enthusiasm, some modern readers have taken the antithesis which he draws between his liberating Copernican philosophy and the confined rigidity of Aristotelianism to represent the emergence of an independent, secular, and therefore 'modern' philosophy from the trammels of the medieval theocracy. In the nineteenth century, this enthusiast for mystical Catholic union becomes a representative of Progress, a hero to the anti-clericals, a 'martyr for modern science'. He is admired for his courageous advocacy of the 'real truth of the Copernican theory' which in the literal sense of 'science' as final revelation of ultimate truth in which his admirers understood it, he himself would have denounced as a pedantry, a rationalizing limitation of the infinite possibilities of the spiritual universe.<sup>106</sup> Because the nineteenth century believed that scientific progress was a light which emerged at the Renaissance from the darkness of medieval superstition it leaped to the conclusion that

this was what Bruno meant by his presentation of his Copernican philosophy emerging from darkness. It would be difficult to find a more curious example of profound historical misunderstanding.

The inquisitors who burnt him had, however, read his works with considerable care as their questions show:

*Interrogatus* — whether in his writings he had made any mention of the Ash Wednesday Supper, and what was his intention.

*Respondit* — I have composed a book entitled *La cena delle ceneri*, which is divided into five dialogues which treat of the motion of the earth; and because I held this dispute with some doctors in England at a supper which took place on Ash Wednesday in the house of the French ambassador, where I dwelt, I entitled the dialogues *The Ash Wednesday Supper*, and dedicated them to the ambassador. And there may perhaps be some errors in this book but I do not exactly remember; and in this book my intention was only to mock those doctors and their opinion on those matters.

*Interrogatus* — whether he had ever praised any heretic or heretic princes, since he had been in contact with them for so long; what did he praise them for and what was his intention in this.

*Respondit* — I have praised many heretics and also heretic princes; but I have not praised them as heretics, but solely for the moral virtues which they had, neither have I ever praised them as religious or pious, nor used such kind of religious epithets. And in particular in my book *De la causa, principio ed uno* I praise the Queen of England and call her 'diva', not as a religious attribute, but as that kind of epithet which the ancients used to give to princes, and in England where I then was and where I composed this book, this title of 'diva' used to be given to the Queen. And I was the more induced to name her thus because she knew me, for I was continually going with the ambassador to court. And I know that I erred in praising this lady, she being a heretic, and above all in attributing to her the name of 'diva'.

*Interrogatus* — if he had conversation with the King of Navarre and confided in him, expecting aid and favour from him.

*Respondit* — I do not know the King of Navarre, and I have never seen him; and when happening to speak of him, I have

said that I believed his Calvinism and heresy was but a political expedient, for if he did not profess heresy he would lose his followers; I have also said that I hoped that when he had pacified the kingdom of France, he would confirm the orders of the late king [i.e. Henri III] and that I would receive from him the favours which I had from the late king concerning public lectures.<sup>107</sup>

This is the only mention of the Copernican theory in the documents of the Venetian trial, and it will be noticed that it is Bruno himself who brings in the motion of the earth, the inquisitors being evidently much more interested in what he meant by the Supper and in why he praised heretic princes. They suspect that the Supper symbolizes an attitude towards heretics and heretic princes of which they cannot approve. If the Copernican theory was one of the eight propositions<sup>108</sup> which Bruno refused to retract and for which he was burnt, it is clear that his political and theological interpretations of it were inextricably woven in the inquisitors' minds (as in Bruno's own mind) with its philosophical aspect. Bruno's trial should be studied in connection with the papal disapproval of the policy of Henri III,<sup>109</sup> which at one time nearly involved a break of the Gallican Church with Rome.

The 'politiques' of France were called 'atheists' by both Huguenots and Leaguers, though they themselves believed that they were devout Catholics. It was a part of the 'information' against Bruno that he had been heard to say

that the method of the Church is not that which the Apostles used to employ: for the latter converted people by their preaching and by the example of a good life, but nowadays whoever will be a good Catholic is subjected to punishment and pain, for force is used and not love; that the world cannot go on like this, for there is nothing but ignorance everywhere and no religion which is good; that the Catholic pleased him much more than others, but that this also had need of much regulation.<sup>110</sup>

A very similar point of view is taken in a French 'politique' pamphlet written in 1589, after the murder of Henri III.<sup>111</sup> The anonymous author defends the memory of the king and deplores the ecclesiastical support given to the Guises. The Church (he argues) which should be devoted to praising God, has become seditious and



violent. What would the early Christians say to this? They were reluctant to shed even the blood of beasts, and for this they were accused of being Pythagoreans.<sup>112</sup>

It was the 'politique' tradition which brought Henry of Navarre to power and Bruno's trial is an important landmark in the history of the Papal attitude towards 'politique' Catholicism. Bruno himself undoubtedly believed that he was a sincere Catholic.<sup>113</sup> His philosophy is very close indeed to that of most of the great Catholic poets and artists of the Renaissance. The trend of the inquisitors' questions<sup>114</sup> seems to show that it was his conciliatory attitude towards heretics and the suspicion aroused through his having lived so long in heretic countries which brought him into danger. He might almost be said to have partly suffered for his efforts to draw England back into the 'generous bosom of Europe'. His death typifies the failure of that 'middle way' of conciliation which the religious wars, resulting in a hardening process on both sides, rendered impossible.

Instead of inaugurating secret groups of 'modern' thinkers, Bruno's real influence in England thus lay in giving a new impetus and a new turn to trains of thought which were most deeply rooted in the past. The transformation of the 'medieval encyclopedia' into the 'Renaissance encyclopedia' under the influence of Italian neo-Platonism had been begun in the first English Renaissance, led by Sir Thomas More, Erasmus, and their friends, who were admirers of Ficino and of Pico della Mirandola. The English Catholic tradition was peculiarly well adapted to make that transformation owing to some of the characteristics of Oxford philosophy — such as Scotist neo-Platonism and Nominalist anti-Aristotelianism. Moreover the English mystical tradition was not confined to philosophers but was a part of the natural background of earlier English life.

Bruno comes into England bringing the latest developments of Italian neo-Platonism as transmitted through the French Renaissance. And he points out how much those developments have in common with earlier English science, philosophy, ritual, and mystical aspiration, and how ill they accord with the more rabidly Puritan aspects of the Reformation. He suggests that in the present wretched state of the world it is upon the Poet that the chief responsibility for carrying on the heroic enthusiasms of former days must rest. Yet these new enthusiasms are to be modified by new forces and new conditions. Bruno's translation into pagan terms of the Dionysian mysticism may be partly a way of disguising

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enthusiasm from the pedants, but it also represents an attitude to this world which is Renaissance rather than medieval.

The second or Elizabethan and poetic phase of the English Renaissance is generally spoken of as being ushered in by Spenser and Sidney. Sidney's poems to the star or lady whom he calls 'Stella' are certainly one of the earliest and most influential of the Elizabethan sonnet sequences. He holds a place as the inspiration – both through his writings and through his personality – of the whole movement which is undisputed. All, from Shakespeare downwards, imitate and admire Sir Philip Sidney. And the link between Bruno and Sidney is completely authenticated. The *Eroici furori* and the *Spaccio* are both dedicated to Sidney in extremely significant terms, and he is also expressly mentioned with gratitude and feeling in the *Cena*.<sup>115</sup> It seems, therefore, that Bruno's works, properly understood, might provide an invaluable key to the motive springs of our greatest literature.

THE EMBLEMATIC CONCEIT IN  
GIORDANO BRUNO'S *DE GLI*  
*EROICI FURORI* AND IN THE  
ELIZABETHAN SONNET SEQUENCES

THE INFLUENCE OF Petrarch upon English poetry begins before the Elizabethan period, but its most powerful development comes in the last decade of the sixteenth century, during which were published sonnet sequences on the Petrarchan model by Sir Philip Sidney, who inspires and leads the whole movement,<sup>1</sup> by Daniel, Constable, Lodge, Barnes, Drayton, Spenser, and others. Those of Shakespeare were not published until later, but they really also belong to the period of this sonneteering fashion.

Modern English students of this poetry have tended to examine it mainly from two angles, which one might characterize as the personal and the literary. The critic interested in the human side asks himself how far the language of Petrarchism is sincere, by which he means: Does it express real feeling for individual women loved by these poets or is it only an artificial fashion? On the whole it has been felt that language so stilted and conventional as that of the majority of these sonnets cannot be the vehicle of genuine human feeling. The literary approach has concentrated on the tracing of sources, and has proved that the Elizabethan sonneteers borrow their conceits and phrasing, not only from Petrarch himself, but also from his many Italian imitators, and, above all, from the French Petrarchists of the school of Ronsard.<sup>2</sup>

This poetry can, however, be studied from yet another angle, making the centre of interest neither the personal experiences of the poets nor their foreign sources, but the sonnet language in itself as an artistic phenomenon. In a recent book<sup>3</sup> the conventional conceits



## THE EMBLEMATIC CONCEIT

used by the Elizabethan poets are discussed and a table provided by which the use of each conceit by different poets can be traced. Such a study brings out the fact that Petrarchism is really a kind of picture language, and that the chief interest of the individual Petrarchist is in the pictures or *concetti* for their own sake.

It is indeed probable that this last approach brings us nearer to the Elizabethan manner of reading the poetry than the other two.<sup>4</sup> And it might be carried a stage further by inquiring what this picture language of the Petrarchan conceit meant to the Elizabethans. One is emboldened to pose this daring question by the fact that Giordano Bruno, the Italian philosopher who came to England at a time when Elizabethan Petrarchism was on the point of bursting forth, and who knew Sir Philip Sidney, uses the Petrarchan conceit in a manner which connects it with the emblem.

The dialogue entitled *De gli eroici furori*<sup>5</sup> was written by Bruno whilst he was living at the French embassy in London and was published in London in 1585 with a dedication to Sir Philip Sidney.

The *Eroici furori* is arranged in sections. Each section usually consists of an emblem or device which is described in words, this description taking the place of what would be a plate in an illustrated emblem book; a poem, generally in sonnet form, in which the forms used visually in the emblem occur as poetic conceits; and finally, an exposition or commentary in which the spiritual or philosophical meanings latent in the imagery which has been presented both in the emblem and in the poem are expounded.

The following is an example of the method. The emblem consists of two stars in the form of two radiant eyes, with the motto *Mors et vita*.<sup>6</sup>

The sonnet<sup>7</sup> which accompanies this emblem is built round one of the commonest clichés of Petrarchist poetry, that of the lady's eyes as stars which the lover prays may be turned upon him although he knows that their glance has power to kill him. This central convention is supported by other equally conventional ideas. There is the worn face of the lover upon which his sufferings are to be discerned:

Writ by the hand of love may each behold  
Upon my face the story of my woes. . . .

There is the pride and cruelty of the lady who seems deliberately at times to torment the lover:

ESSAYS ON GIORDANO BRUNO IN ENGLAND

But thou, so that thy pride no curb may know  
. . . Thou dost torment. . .

This leads up to the image which is the foundation of the whole poem, that of the lady's eyes as lights or stars:

Thou dost torment, by hiding from my view  
Those lovely lights beneath the beauteous lids.  
Therefore the troubled sky's no more serene.

Finally, there is the prayer to the lady, as to a goddess, to relent from her unkindness and turn her eyes upon the suffering lover, even though her glance may kill him:

Render thyself, oh Goddess, unto pity! . . .  
Open, oh lady, the portals of thine eyes,  
And look on me if thou wouldst give me death!

The conceit dominating the whole sonnet, which is a tissue of Petrarchist phraseology, is that of the stars-eyes which had already been presented in the emblem.

In the commentary which follows the meanings are explained. The face upon which the story of the lover's woes is written is the soul seeking God. Here Bruno quotes metaphors from the Psalms: 'My soul thirsteth after thee as a weary land', and, 'I opened my mouth wide and panted; for I longed for thy commandments.'<sup>8</sup> The image of the worn face of the lover in the sonnet is, he says, intended to have the same meaning as that which the Psalmist conveys when he speaks of the thirst and the panting of the soul. The pride of the lady is a metaphor, as God is sometimes said to be jealous, angry or asleep, signifying how often he withholds the vision of himself. 'So the lights are covered with the eyelids, the troubled sky of the human mind does not clear itself by the removal of the metaphors and enigmas.'<sup>9</sup> By praying that the eyes should open, the lover is praying that the divine light should show itself. And the death which the glance of the eyes can give signifies the mystical death of the soul 'which same is eternal life, which a man may anticipate in this life and enjoy in eternity'.<sup>10</sup>

The commentary thus provides a key to the meaning both of the sonnet with its prayer to the death-dealing stars-eyes of the lady and of the emblem of the stars-eyes with its motto *Mors et vita*. The emblem and the conceit are vitally linked together because they

## THE EMBLEMATIC CONCEIT

both have the same hidden meaning. In short, *the conceit is an emblem*.

There is not space to work out any other emblem-conceits from the *Eroici furori* as fully as this. But the following are a few more examples of the method in abridged form, giving only the leading ideas of the figures described, without the subtleties of the detailed interpretation.

The emblem consists of two stars, below which is a head with four faces which blow towards the four corners of the heavens and which represent the winds.<sup>11</sup> There is a sonnet in which the same imagery is used, and the commentary explains that the winds are spiritual aspiration,<sup>12</sup> and that the two stars are divine beauty and goodness towards which the lover or enthusiast aspires. If these divine stars are visible they calm the tempest of his soul; but if invisible he will be troubled and harassed. They have the power to kill the enthusiast, a power which is benevolent because it causes him to die to everything except his divine object.

It will be observed that the meaning of this emblem and sonnet is really exactly the same as that of the stars-eyes emblem conceit, although the imagery is slightly different. The worn face of the lover, the panting breath of the Psalmist, the tempestuous winds in the breast of the enthusiast, are all hieroglyphs with the same meaning — that of spiritual aspiration. And this second emblem-conceit of the stars above the winds expresses the experience of a soul painfully in search of vision and passing through alternate moods of insight and obscurity, as the stars are now visible, now invisible.

The arrow is an image which Bruno uses very freely and in various forms. For example, the arrow-pierced heart:

One object only I regard,  
One face alone my mind does fill,  
One beauty keeps me fixed and still;  
*One arrow pierced my heart. . . .*<sup>13</sup>

That is to say, explains the commentary, the will of the enthusiast is fixed on one divine object, and 'from thence alone he derives that barb which, killing him, constitutes the consummation of perfection'.<sup>14</sup>

A variant form of the arrow emblem-conceit is the figure of two radiating arrows upon a target, with the motto: *Vicit instans*.<sup>15</sup> Here the target symbolizes the hard, adamant heart pierced in an



instant by the arrows of divine love. Again, he uses the figure of an arrow with a burning point.<sup>16</sup> This combines the metaphors of a piercing and at the same time burning agency. Roughly speaking, Bruno means by the arrow impressions made by the divine upon the soul; the piercing arrow is the burning ray of divine beauty which wounds the lover.

A large number of the conventional sonnet images are used by Bruno in this way, that is to say as emblems of mystical experience. Yet if the poetry of the *Eroici furori* were to be printed by itself, without the prose emblems and the explanatory prose commentaries, we should have what would appear to be a kind of sonnet sequence (although not all the verses are in sonnet form), very obscure and difficult to follow, yet highly conventional in the conceits and images which it uses.

In the dedication to Sidney of the *Eroici furori*,<sup>17</sup> Bruno is at pains to impress fully upon Sidney and his other readers what he is doing. This dedication opens with a violent attack on Petrarchism in the sense of worship of some human mistress, or, as he puts it, of 'distilling the elixir of the brain' in conceits which display to the public view the tortures and torments suffered under the tyranny of an unworthy object, that is of a human and not a divine object.<sup>18</sup> His own poetry, so he explains to Sidney, is concerned solely with the divine. In fact he had intended to make this quite clear by entitling his book a canticle, for its meaning is the same as that of Solomon's poem, 'which under cover of ordinary loves and affections contains similar divine and heroic enthusiasms'. But he refrained from giving it this title for two reasons. First, the fear of censure.<sup>19</sup> And second because there is an external dissimilarity between the form of the *Song of Songs* and these *Eroici furori* 'although the same mystery, the same substance of soul, is shadowed forth within them both';<sup>20</sup>

For in the one case the figures of speech are openly and manifestly but figures, and the metaphorical sense is known, so that it is undeniably metaphorical when thou hearest of those dove's eyes, that neck like a tower, that tongue under which is milk, that fragrance of incense, those teeth like a flock of sheep which come up from the washing, that hair which is like a flock of goats that appear from Mount Gilead;<sup>21</sup> but this poem does not present an appearance which thus obviously urges thee to seek a latent and occult meaning, for

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in it are used ordinary modes of speech and similitudes more accommodated to common sense, such as witty lovers generally use and well-known poets are accustomed to put into verse and rhyme, with sentiments such as are used by those who speak of Citherea, or Licoris, of Doris, Cynthia, Lesbia, Corinna, Laura, and others. Whence each reader might easily be persuaded that my fundamental meaning and primary intention was addressed to an ordinary love, who had dictated to me such conceits; which love afterwards, by force of disdain, had taken to itself wings and become heroic; as it is possible to convert any fable, romance, dream, or prophetic enigma, and to transfer it, by virtue of metaphor and a pretext of allegory, into the significance of anything that may please a mind which has an aptitude for wresting sentiments to any meaning, and of making everything out of everything, since all is in all, as the profound Anaxagoras says. But though he may think what he will and what pleases him, in the end each reader, whether he likes it or not, ought in justice to understand and define this matter as I myself understand and define it, and not force me to understand and define it as he thinks fit: for as the enthusiasms of that wise Hebrew have their own modes, orders, and titles which no one can understand or better declare than he himself, if he were present; so these Canticles have their proper title, order, and mode, which no one can better make plain and understand than I myself, when I am not absent.<sup>22</sup>

One might perhaps express in other words the difference in form between his poetry and that of Solomon which Bruno is here describing by saying that it is the difference between an *allegorical* and an *emblematic* mode of speech. The allegorical mode, by its very strangeness and unnaturalness, will not allow the mind to rest in it without seeking a further explanation. But the emblematic mode may lull the reader into taking it at its face value.

It would be valuable to compare the medieval commentaries on the Canticle with Bruno's commentaries on his poems — a task not impossible since in three instances he points out in detail which passages of the Canticle correspond to which passages of the *Eroici furori*. For example, his third dialogue, he says, shows the force of the will beginning to conquer in the spiritual conflict and corresponds to those verses of the Canticle which speak of the winter being past and the rainy season over, and that the time of the

flowers and singing birds has come.<sup>23</sup> Such a comparison might help to trace in some detail the processes by which the allegories of medieval mystical theology were transposed in a Renaissance mind into the emblematic mode of speech.

Since Bruno uses Petrarchan conceits as emblems, and in conjunction with emblems, it seems obvious that the best way of trying to get at the historical flavour of his Petrarchism would be to relate his emblems to the history of emblem literature. In one of its aspects the *Eroici furori* is an unillustrated emblem book and as such has, or should have, a place in the history of emblem literature. The following attempt to suggest that place must be regarded as tentative.<sup>24</sup>

The vast sixteenth-century literature of emblem and device first takes its characteristic form with the *Emblematum liber* (1531) of Andrea Alciati. This was one of the most influential books of the sixteenth century; it went through innumerable editions<sup>25</sup> and learned men wrote commentaries upon it. The book initiated an immense fashion for similar productions; outstanding names of emblematisers in the sixteenth-century are those of Paolo Giovio, Ruscelli, Contile, but their number is legion. The fashion spread through Europe and in the seventeenth century the genre continued with unabated popularity, though now chiefly in the form of the religious emblem book, a very favourite weapon of the Jesuits.<sup>26</sup>

The emblem literature, trivial though it may sometimes seem at first sight to be, is deeply rooted in the thought of the time. The Renaissance type of emblem seems to have originated in the study of Egyptian hieroglyphs by the humanists.<sup>27</sup> The hieroglyph was believed by them to be a picture with a hidden divine meaning, and since they also believed that both the Graeco-Roman and the Hebraeo-Christian traditions were indissolubly linked with Egypt, it followed that (to their minds) the study of the hieroglyphs was fundamentally a study of divine secrets. Understood in this way, the hieroglyphs became one with Catholic symbolism; the medieval allegories could be translated into hieroglyphs, and vice versa.<sup>28</sup> The emblems of Alciati and the rest were really invented hieroglyphs, expansions of the picture language which drew material from all kinds of sources, one of which was the poetry of Petrarch.

We shall now take a few examples from sixteenth- and seventeenth-century emblem books, illustrating the development of the Petrarchan emblem, in order to compare them with the emblems of the *Eroici furori*.



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The picture of a butterfly burning itself in a flame which is to be found in Camillo Camilli's *Imprese illustri* (Pl. 18a) is a typical example of a plate from an Italian illustrated book of devices.<sup>29</sup> The motto 'M'è piu grato il morir che il viver senza', that is 'I would rather die than live without it', is taken, as Camilli points out in his commentary, from Petrarch.<sup>30</sup> Petrarch, says Camilli, meant by this image of the butterfly and the flame that he died in his mistress's presence, but nevertheless felt such sweetness in this that he preferred it to remaining alive in her absence. But in this emblem or device the flame means science for which the bearer of the device renounces all pleasure and eats up his life, yet feels a secret delight in doing this.

This is an example of how emblematisers drew on Petrarch as a source of 'potential emblems'.<sup>31</sup> The butterfly and flame image is a very common one in the emblem books.<sup>32</sup>

Turning now to the *Eroici furori*, we find the following:

What is the meaning of that butterfly which flutters round the flame, and almost burns itself? and what means that legend, 'Hostis non hostis?'<sup>33</sup>

Reading this after looking at the example of an illustrated emblem from Camilli one understands how true it is to describe the *Eroici furori* as an 'unillustrated emblem book'. Bruno in these words places before the reader an imaginary illustration, and, in this case, one which would be very familiar to those well versed in the emblem literature.<sup>34</sup> In the commentary he explains the meaning with which he is using the image.<sup>35</sup>

Several of the devices in Ruscelli's collection are based on Petrarch. For example, the one which shows an eagle gazing at the sun (Pl. 18b) with the motto 'Chi mi puo far di vera gloria lieta,' 'That which (that is, the sun) can make me happy with true glory,' is according to Ruscelli, a modification of the 'sacred precept of Petrarch' which he quotes thus:

Tien pur gli occhi qual'Aquila in quel Sole,  
Che ti può far d'eterna gloria degno<sup>36</sup>

(Keep your eyes fixed, like the Eagle, on that Sun  
which can make you worthy of true glory.)

The interpretation of this *impresa*, which was adopted by Irene Castriota, Princess of Bisignano, is, says Ruscelli, that all the lady's thoughts and desires are fixed upon God, the Sun who illuminates the darkness of the soul. But others, he adds, have thought that the meaning is the devotion of the lady towards her husband.

This device and its meaning is characteristic of Ruscelli's treatment of Petrarchan emblems. The sense is mainly religious but at the same time it retains human undertones. Ruscelli has the humanist and courtly respect for the ideal type of human love as in itself already half divine<sup>37</sup> and is without Bruno's 'anti-Petrarchist' spirit which demands an entirely abstract use of the Petrarchan emblem. It is in this respect that Bruno's emblems look forward to the seventeenth century. Their technique is that of Ruscelli and the whole sixteenth-century literature of emblem and device; but in spirit they belong to the baroque rather than to the Renaissance.

In the early seventeenth century emblem books there is a split between the 'profane' and the 'sacred' uses of the love conceit.<sup>38</sup> One of the most striking examples of this is to be found in the two emblem books of Otto van Veen, or Vaenius, published at Antwerp in 1608 and 1615 respectively. The first is a book of 'profane' love emblems which gives vivid pictorial presentations of the conceits so familiar to us from the sonnet writers. The second is a book of 'sacred' love emblems in which the conceits are used in the service of religion. In the first set of pictures the actors in the drama are the profane Cupid, the lady, and the lover. In the second the actors have changed to Divine Love and the soul. But the conceits in which the spiritual drama is expressed are very close indeed to the 'profane' conceits.

This can best be studied by looking attentively at some examples.

One 'profane' emblem shows love being burned at the stake whilst the proud lady cruelly stirs the flames in which he suffers (Pl. 18c). Yet in the midst of his torments he turns upon the lady a humble and gentle gaze of resignation. The motto is 'Ny mesme la mort', and the meaning that the lover loves to suffer and even in death does not lack constancy.

The companion picture to this in the 'sacred' series shows the soul being burned at the stake whilst the executioner stirs the flames (Pl. 18d). But the soul is sustained in her torments by divine love, who clasps her hand encouragingly.

Another profane emblem shows Cupid shooting arrows at a breastplate (Pl. 19b). The motto is 'Amour passe tout' and the meaning that neither iron nor steel keeps out love's arrows.

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In the sacred version the divine Cupid and the soul are seen shooting arrows at a breastplate and a shield (Pl. 19a). The meaning, of course, is the penetrating power of divine love.

Another picture in the profane series is a literal interpretation of the conceit of the darts from the lady's eyes (Pl. 19c). The lady sweeps forward in proud beauty whilst the lover lies stricken and wounded by the arrows from her eyes.

Equally literal is the presentation of the divine lover inflaming the breast of the soul with rays from his sun-like halo (Pl. 19e). The soul is here pierced by the ray of divine love just as the lover in the other picture is pierced by the arrows from the eyes. The allusion to arrows is present in the sacred emblem, for the divine Cupid is fully armed with bow and quiver.

The sacred emblem book thus uses the profane conceits as emblems of spiritual experience. And the tone of the whole series is set by the first picture in the book which shows Divine Love raising the soul (Pl. 18e). This picture is accompanied by a quotation from the Canticle: 'Rise up, my love, my fair one, and come away. For, lo, the winter is past, the rain is over and gone; the flowers appear on the earth; the time of the singing birds is come.' The whole composition is obviously meant to illustrate this imagery. It will be remembered that this very passage from the Canticle is one of those which, thirty years earlier, Bruno had told Sidney that he was transferring into the language of the Petrarchan conceit.

Let us think over for a moment the resemblances and differences between Vaenius' procedure and that of Bruno. Bruno means by the eyes of the lady, divine beauty and goodness; by her pride and the torments which she inflicts on her lover, the painful processes of spiritual progress and experience; by Cupid's piercing arrows, which burn as well as pierce, the influences of the divine working upon the soul. These are the meanings which are made explicit in Vaenius's sacred emblems. But Bruno uses the *profane* emblems with such meanings implicit in them. As he himself says, his language is not obviously sacred in intention, like that of the Canticle, but might be mistaken for an 'ordinary love'.<sup>39</sup> Bruno's usage is thus more truly emblematic than that of Vaenius, for the sacred emblems of Vaenius are really sacred pictures, which quite obviously must have an allegorical meaning. But to use the ordinary conceit with the other meaning, as Bruno does, is to use it as a genuine emblem – that is to say, as a picture which secretly refers to something other than that which it appears on the surface to represent.



The sacred emblem book, of which the one illustrated by Vaenius is an early and striking example, was to have an enormous future in the literature of seventeenth-century devotion and became in the hands of the Jesuits an instrument of Counter Reformation propaganda. The Jesuit emblem books<sup>40</sup> are cruder in style but they carry on the same principle of applying the conceit to the sacred emblem. Take, for example, the heart pierced by an arrow from the divine lover's bow (Pl. 19d) in van Haeften's *Schola cordis*<sup>41</sup> which is based entirely on conceits of the heart.

The same book contains an emblem of a winged heart (Pl. 20a). This is one which Bruno also uses and in a manner curiously like, though in some respects unlike, the form in which it is found years later in these Jesuit emblem books.

The emblem which Bruno describes<sup>42</sup> consists of a winged heart escaping from a cage up into the sky. On its upward flight the heart is guided by a blind Cupid. In the accompanying sonnet he uses the same imagery, except that he now addresses his heart as an escaping bird. In the commentary he explains that the cage represents the impediments to the spiritual life caused externally in a thousand different ways and internally by natural weakness. The heart is dismissed from it to more celestial surroundings, and its wings are the powers of the soul, as the Platonists describe them.<sup>43</sup> The god who guides it is Love, who has power to transform the seeker into that nature towards which he aspires. The whole episode closes with quotations from Petrarch, the Canticle, and the Psalms.

A near approach to this is to be found in one of the best known and most influential of the Jesuit emblem books, namely Herman Hugo's *Pia desideria*<sup>44</sup> (first edition in 1624). One of his emblems (Pl. 20b) shows the soul being released from the cage of sense by divine love, with an allusion in the empty cage hanging on the tree from which a bird has just escaped to the theme of the escaping bird. This is very close indeed to Bruno's emblem, although there are certain differences. The author of *Pia desideria* felt the emblem of the winged heart to be so typical of his aims that he uses a winged and burning heart on his title-page (Pl. 20c).

The fact that the *Eroici furori* cannot be illustrated from sixteenth-century examples alone but demands also incursions into the seventeenth century suggests that its place in the history of emblem-book literature might be that of a late Renaissance anticipation of the baroque. Bruno's emblematics would appear to use the Renaissance technique of secret allusion to convey a spirit of baroque fervour. In his hands, the courtly Petrarchan 'device', with

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its many-sided allusions, is used in the spirit of the future — that seventeenth-century future in which the sacred emblem was to play such a dominating role in the European imagination.

It will be remembered that in outlining Bruno's methods in the *Eroici furori* the point was emphasized that he uses emblems in conjunction with poems.<sup>45</sup> He describes the conceit in visual form in the emblem, and sings it in aural form in the poem. There is thus some organic connection between pictorial emblems and poetic conceits,<sup>46</sup> and it follows that to place the emblems historically is also to place the sonnets. If, as we have said before, the poems of the *Eroici furori* were to be printed without the emblems and the commentaries, they would appear as a kind of sonnet sequence. This sonnet sequence would belong to the same climate as the emblems; that is to say, however much it might appear to be addressed to an 'ordinary love', it would in fact be a record of spiritual experience, a translation of the images of the Canticle into Petrarchan conceits used as hieroglyphs, and, historically speaking, it would reflect a moment in the late sixteenth century in which the forces of the coming age were beginning to use these images with a different spiritual accent.

But there is another side to Bruno's use of the Petrarchan conceit — and one which must be mentioned, however inadequately — and that is its connections with his philosophy.

The attitude of mind which sees the universe itself as a hieroglyph or emblem in which divine truth is hidden is profoundly characteristic of Bruno. The sun, the planets, the moon, the earth, are indirect reflections of the Godhead, enigmatic pictures with a hidden meaning. The universe is constructed on the same principle as an emblem or device; that is to say, it secretly shadows forth spiritual truths in terms of objects perceived by the senses. One seventeenth-century theorist on emblematics saw the sky as 'a vast cerulean Shield, on which skilful Nature draws what she meditates: forming heroical Devices, and mysterious and witty Symbols of her secrets'.<sup>47</sup> This attitude of mind must be realized in order to understand how it is that the sonnet conceits, as Bruno uses them, become, as it were, interchangeable with his philosophy. The witty conceits of lovers are used as emblems of spiritual truth, and therefore such emblems are merely variant ways of expressing the one divine truth which God has wittily concealed in the phenomena of the universe. Bruno's use of metaphysics is really as emblematic as his use of poetic images; hence the ease with which he modulates

from the one form of expression into the other.<sup>48</sup>

This is brought home by comparing a predominantly poetic dialogue, such as the *Eroici furori*, with a predominantly philosophical dialogue, such as the *Cena de le ceneri*. Yet there are many metaphysical symbols in the *Furori* and some lyrical symbols in the *Cena*. In the *Furori* the poetic emblems are dominant, though with an undercurrent of metaphysics to show their relation to the metaphysical system. In the *Cena*, the opposite is the case; the metaphysical emblems are dominant,<sup>49</sup> though here and there their connection with the lyrical images is noted. We will quote one example of this correlation from the *Cena*.

One of the most characteristic and striking expositions of the philosophy in the *Cena* is that passage where Bruno in spirit breaks through the restraining Ptolemaic spheres into what he takes to be the infinity of the Copernican universe:

Behold now, standing before you, the man who has pierced the air and penetrated the sky, wended his way amongst the stars and overpassed the margins of the world, who has broken down those imaginary divisions between the spheres, the first, the eighth, the ninth, the tenth, or what you will . . .<sup>50</sup>

This passage is prefaced by a quotation from love poetry, not, indeed, that of Petrarch but that of Ariosto:

Chi salirà per me, Madonna, in cielo  
A riportarne il mio perduto ingegno. (*Orlando Furioso* XXXV, i)

Mistress who shall for me to heaven upfly  
To bring again from thence my wandering wit.<sup>51</sup>

Here one sees how the philosophical disquisition is related to the lyrical cry, and that both are, as it were, *emblems* of ascent, of spiritual flight into realms unknown. The Ptolemaic spheres are, so to speak, the wires of an imprisoning cage whence the winged heart escapes into Copernican infinity.<sup>52</sup>

One might also illustrate the interchangeability of lyrical and philosophical emblems from the woodcut (Pl. 20d) which, in the *Cena de le ceneri* accompanies the argument in favour of the movement of the earth from the analogy of a stone dropped from the mast of a moving ship on to its deck. This woodcut is ostensibly a diagram. But the points marked by letters in the text are not shown



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on it,<sup>53</sup> whilst the two flames which are visible on the sail-yards of the ship are a curious feature and seem to suggest some possible emblematic meaning.

If this woodcut is indeed an emblem it might be connected with Alciati's forty-third emblem of *Spes proxima* (Pl. 20f). In Mignault's commentary upon this emblem<sup>54</sup> we are told that the two stars (in the top left-hand corner) are Castor and Pollux whose appearance means that the tempest in which the ship is tossing is about to abate, hence the motto *Spes proxima*, Hope is at hand. This emblem is perhaps the nearest thing one can find to Bruno's emblem in the *Eroici furori* of the two stars above the four winds, which, as will be remembered, was connected with the stars-eyes theme, signifying spiritual calm when the stars of divine beauty and goodness were visible and spiritual tempest when they were obscured. And it might also be connected with the woodcut in the *Cena* of the ship with the two flames on the sail-yards, for Mignault explains that, according to a well-known legend, the saving presence of the twin stars Castor and Pollux was made known to distressed mariners by the appearance of two lights on the sail-yards of their ship.<sup>55</sup> The same story is told by Ruscelli in his commentary<sup>56</sup> on one of the devices in his collection which is based on Alciati's *Spes proxima*. In the device shown by Ruscelli (Pl. 20e) the two stars are actually on the sail-yard, though still in the form of stars and not of flames.

The woodcut in the *Cena* thus seems indirectly, through the two flames on the sail-yards, to suggest an allusion to the calming and hope-inspiring appearance of the twin stars amidst the tempest, and, if really designed by Bruno or chosen by him from an already existing design, would indicate (what is certainly in itself true) that the Copernican theory which this picture is supposed to illustrate as a diagram, meant to him an emblem of divine revelation corresponding in its meaning to the lyrical emblems, such as the one of the stars-eyes in the *Eroici furori*. But too much importance must not be attached to an argument based on this woodcut, owing to the habit of sixteenth-century printers of using the same wood-block indiscriminately in different publications.<sup>57</sup>

This side of Bruno's thought connects him with the philosophy of the Renaissance. It is necessary to approach the emblems in the *Eroici furori* from this point of view in order to balance the impression gained from the realization that they anticipate the sacred emblems of the seventeenth century. Bruno's use of the Petrarchan conceits is certainly baroque in feeling, but it is a kind of metaphysical baroque, a blend of Renaissance philosophical and religious

liberalism with baroque intensity and fervour.

Such was the emblem book which was dedicated to Sir Philip Sidney, the initiator of the Elizabethan poetic Renaissance. Its qualities were bound to appeal strongly to the passionate and profound Elizabethan temperament,<sup>58</sup> and it indicated to the rising generation of English poets a way of using Petrarchism which would make of it, not a delayed imitation of a fashion now nearly 200 years old, but a channel for the spiritual life of Europe in its present-day manifestations.

We now come to the English poets, and here our attempts will be very modest. It is proposed to take only the very few conceits which have been studied (and which represent, of course, but a tiny fraction of the Petrarchan vocabulary) and to quote and discuss some examples of them from four sonnet writers, namely — Sidney, Daniel, Greville, and Drayton. It must be remembered that the English sonnet writers have not left us, like Bruno, commentaries on their sonnets. All we have is the poems as they stand and in pondering upon them we are no longer on the same firm ground as with Bruno, who explains what he is doing.

Before coming to the quotations from Sidney's sonnets, something must be said about the evidence for the connections between Bruno and Sidney.

Two of Bruno's works (*Lo spaccio della bestia trionfante*, 1584, and *De gli eroici furori*, 1585) are dedicated to Sidney, whilst in the *Cena de le ceneri* (1584) he speaks of having known Sidney 'first by reputation when I was in Milan and in France, and now, since I have been in this country, through having met him in the flesh'.<sup>59</sup>

Sidney's sonnet sequence to 'Stella' was first published in 1591, after his death, but the dates at which he actually composed the poems cannot be exactly fixed. It is generally supposed that they must have been written in the earlier half of the 1580 decade, perhaps from 1581 onwards.<sup>60</sup> (Sidney was killed at Zutphen in 1586.) A fact which is now certainly known about the sequence is that it was addressed to Penelope Devereux, Lady Rich.<sup>61</sup>

In view of the uncertainty as to the actual date of composition of Sidney's sonnets, and in view also of the fact that they were definitely addressed to a real woman, can one assume them to be influenced by Bruno's 'anti-Petrarchist' emblematics?

In answer to this, the following points may be emphasized.

At the end of the *Eroici furori* dedication Bruno exempts from his anti-Petrarchist tirades those ladies who are connected with Sidney;

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these, he says, are worthy objects of devotion since they are divine nymphs, formed of celestial substance, like the divine Diana (Queen Elizabeth) who reigns over them.<sup>62</sup> He repeats these praises in a sonnet to the ladies of England, in which he says that these ladies are like stars on earth:

E siete in terra quel ch'in ciel le stelle.<sup>63</sup>

One would be tempted to conjecture from these remarks that Bruno was alluding to Sidney's sonnets to 'Stella'. And such a conjecture is absolutely and categorically confirmed by John Florio, who, eighteen years later, addressed a dedication to two ladies connected with Sidney – namely his daughter, the Countess of Rutland, and Lady Rich, the original of 'Stella'. In this dedication the following words are to be found:

Or as my fellow *Nolano* in his heroycall furies wrote (noble Countesse) to your most heroicke father, and in a Sonnet to you Ladies of *England*, *You are not women, but in their likeness Nymphs, Goddesses, and of Celestiall substance,*

Et siete in terra quel' ch'in ciel' le stelle.<sup>64</sup>

Florio is here reminding Sidney's daughter, the Countess of Rutland, of her heroic father to whom *Nolano* (that is Bruno) had dedicated his *Eroici furori*; and in the next breath he reminds Lady Rich of the line on 'stelle' in Bruno's sonnet to the ladies of England. It is perfectly clear that Florio associates Lady Rich, and therefore the 'Stella' of Sidney's sonnet sequence, with Bruno's *Eroici furori*.

This dedication is accompanied by a sonnet by Matthew Gwinne, addressed to Lady Rich, which is a tissue of epithets drawn from Sidney's sonnets.<sup>65</sup> Matthew Gwinne and John Florio are both mentioned by name by Bruno in his *Cena de le ceneri* as his close associates,<sup>66</sup> so they were in a position to know the truth – and the truth, to them, evidently is that there is a very close connection between Sidney's sonnets to 'Stella' and the *Eroici furori*.<sup>67</sup>

By excepting Sidney's sonnets to 'Stella',<sup>68</sup> and the poetic worship of Queen Elizabeth as the 'divine' Diana, from his invectives against 'ordinary' Petrarchism, Bruno thus seems to include the rising school of English poets as Petrarchists in the emblematic sense. He suggests that the meanings inherent in his



own poetry must also be implicit in the poetry of the heroic nobleman to whom he is addressing his own heroic enthusiasms.<sup>69</sup> It follows that Sidney's devotion to Lady Rich must have had broader implications than the purely personal, and that the aspiration towards a divine object is somehow bound up with his cult of 'Stella'.

It is a point of great significance that Sidney himself professes a kind of 'anti-Petrarchism' in his sonnets. He will not, he says, imitate the poets who borrow conceits and phrases from Petrarch; he will not write in that artificial style at all but will derive all his inspiration from 'Stella'.

You that do search for every purling spring  
Which from the ribs of old Parnassus flows;  
And every flower, not sweet perhaps, which grows  
Near thereabouts, into your poesy wring:

You that do dictionary's methods bring  
Into your rhymes running in rattling rows;  
You that poor Petrarch's long deceased woes,  
With newborn sighs and denizen'd wit do sing:

You take wrong ways! Those far-fet helps be such  
As do bewray a want of inward touch;  
And sure at length, stolen goods do come to light.

But if (both for your love and skill) your name  
You seek to nurse at fullest breasts of Fame:  
STELLA behold! and then begin to endite.<sup>70</sup>

The same intention is expressed in the first sonnet of the sequence, in which he says that after 'oft turning others' leaves' in search of ideas for his poetry his Muse bade him leave that barren study and turn inwards for inspiration:

'Fool!' said my Muse, 'Look in thy heart, and write!'<sup>71</sup>

It has been a great disappointment, and also something of a puzzle, to those in search of 'sincerity' in the sonnet sequences, that after giving himself such admirable advice Sidney does not follow it. For his sonnets are full of the usual Petrarchan conceits — a fact which must have been perfectly patent both to himself and to his readers. Why then does he announce so solemnly that he is *not* going to Petrarchize, and then proceed to do that very thing most assiduously?

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Surely, it is in Bruno's dedication to him of the *Furori*, where one learns how an anti-Petrarchist could yet make use of the conceits as emblems, that an answer to this might be found. Does it not seem probable, in the light of that dedication, that Sidney's anti-Petrarchist profession combined with Petrarchist practice means that he also is using the conceits emblematically?

In order to work this suggestion out fully the whole range of imagery used by Bruno in the *Furori* and by Sidney in *Astrophel and Stella* ought to be carefully compared. Here one can only quote a few examples from Sidney of the conceit which we chose to study as an example of Bruno's method — namely that of the stars-eyes.

This is, in fact, the dominating conceit of Sidney's sequence.<sup>72</sup> Here is an example:

Soul's joy! bend not those morning stars from me!  
Where Virtue is made strong by Beauty's might,  
Where Love is Chasteness, Pain doth learn Delight,  
And Humbleness grows on with Majesty:

Whatever may ensue, O let me be  
Co-partner of the riches of that sight!  
Let not mine eyes be hell-driven from that light!  
O look! O shine! O let me die and see!

For though I oft myself of them bemoan,  
That through my heart their beamy darts be gone;  
Whose cureless wounds, even now, most freshly bleed:

Yet since my death wound is already got;  
Dear Killer! spare not thy sweet cruel shot!  
A kind of grace it is to slay with speed.<sup>73</sup>

We gain no mental image from this of any particular woman's face, nor even of any face at all. We see only two eyes in the form of two stars. These eyes are the seat of virtues. The lover prays vehemently that their light may not be taken from him. Yet the eyes have power to kill him with death-dealing darts. Knowing this, he yet prays that they may be turned upon him so that he may die with speed.

Could anything be closer than this to Bruno's emblem of the two eyes in the form of two radiant stars with the motto *Mors et vita*, with its accompanying sonnet in which he prays that the cruel lady will not turn her eyes from him but will open them and give him death? In Bruno's case his commentary tells us the meanings — the eyes, divine beauty and goodness, the prayer to them a prayer that the divine light may show itself and clear the troubled sky of the

human mind (compare Sidney 'let not mine eyes be hell-driven from that light'), the death from them the mystical death of the soul, which is eternal life.

The sonnet has exactly the device-like quality with which Bruno uses the conceits. Sidney does not present this conceit in the form of the little dramatic scene which Vaenius illustrates (Pl. 19c). That scene is indeed implicit in his sonnet, but is suggested rather by the more economical methods of the device. As in Bruno's treatment of the theme, we see here little more than the two stars in the form of two radiant eyes towards which the lover bends all his will in prayer. It is an emblematic statement of the direction of the will towards a sublime object in self-effacing humility and pain, the heroic device of an heroic enthusiast.

Almost exactly the same set of images is found also in this sonnet:

O eyes! which do the spheres of beauty move;  
Whose beams be joys; whose joys, all virtues be;  
Who while they make Love conquer, conquer Love.  
The schools where Venus hath learned chastity.

O eyes! where humble looks most glorious prove;  
Only, loved tyrants! just in cruelty,  
Do not! O do not from poor me remove!  
Keep still my zenith! Ever shine on me!

For though I never see them, but straightways  
My life forgets to nourish languisht sprites;  
Yet still on me, O eyes! dart down your rays!

And if from majesty of sacred lights  
Oppressing mortal sense, my death proceed:  
Wracks, triumphs be; which love (high set) doth breed.<sup>74</sup>

The emblematic nature of the eyes is here more clearly indicated. The eyes have conquered the terrestrial Venus; they are 'sacred lights'. From them proceed the death-dealing and at the same time life-giving rays. (The paradoxical 'Wracks, triumphs be' of the last line has a motto-like precision and is a statement in variant terms of the prevailing theme of *Mors et vita*.) The emphasis in this emblem-sonnet is on the ray image rather than on the dart image, in contrast to the one first quoted where the emphasis is on the darts from the eyes (though the ray theme is present in the adjective 'beamy' in 'beamy darts'). This suits the more explicit statement of



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this sonnet; Cupid's darts, shot from the eyes, have openly become the divine rays streaming from the 'sacred lights'.

In succeeding sonnets there is a complaint that, in spite of these prayers, favour has been withdrawn from the lover. The more he cries, the less 'grace she doth impart'.<sup>75</sup> We must here remember how, with Bruno, the pride of the lady is a metaphor, as God is sometimes said to be jealous, angry, or asleep.<sup>76</sup> The sense of woe and desolation is conveyed by Sidney in an interesting use of the worn face image:

Stella oft sees the very face of woe  
Painted in my beclouded stormy face . . .<sup>77</sup>

It will be remembered that in one of his sonnets Bruno uses the worn face of the lover as an emblem of aspiration;<sup>78</sup> and in another he conveys the same meaning by tempestuous winds beneath the stars.<sup>79</sup> Sidney seems here to combine these two ideas by describing the sadness of the lover's face in terms of cloud and tempest, thus producing the beautiful image of the 'beclouded stormy face' to express a mood in which 'the troubled sky of the human mind does not clear itself by the removal of metaphors and enigmas'.<sup>80</sup>

Read in the light of the *Eroici furori*, Sidney's sonnets are seen to be, like Bruno's, a spiritual autobiography, reflecting in terms of Petrarchan emblems, the moods of a soul seeking God. Bruno's commentary on his own poems cannot take the place of a commentary by Sidney himself on the *Astrophel and Stella* sequence, and there are still obscurities and problems in the latter, the most puzzling of which is that the poet sometimes reproaches himself for his devotion to Stella and a moral conflict arises in his mind. We never find this in the *Eroici furori* where, although the lover passes through many conflicts and sufferings, he is always certain of the rightness and full divinity of his object. To Sidney, on the other hand, whilst Stella is usually the completely virtuous and divine object (as in the stars-eyes emblem-sonnets which we have quoted) at other times she seems not to represent the highest possible good,<sup>81</sup> but something less exalted from which he must tear himself away. In the absence of a sonnet-by-sonnet explanation from Sidney of the various shades of mood and meaning in his sequence, this problem must remain a dark one.

Sidney himself issues a warning against reading into his poetry meanings which have not the author's sanction:

You that with allegory's curious frame,  
Of others' children, changelings use to make:  
With me, those pains for God's sake do not take.  
I list not dig so deep for brazen fame.

When I say Stella! I do mean the same  
Princess of Beauty; for whose only sake  
The reins of love I love, though never slack:  
And joy therein, though nations count it shame.<sup>82</sup>

These lines, which might appear at first sight to smash our arguments, are on the contrary one of the points in the *Astrophel and Stella* sequence which put one most irresistibly in mind of Bruno's text. For is it not almost in these very words that Bruno concludes the passage in the dedication of the *Eroici furori* in which he explains that he is using the Petrarchan conceits with the meanings of the *Canticle*?<sup>83</sup> His readers, he says, are not to convert his poetry, 'by virtue of metaphor and a pretext of allegory' into some meaning which pleases their own fancy. The poems are to be understood as he himself wishes them to be understood. Sidney, in the above sonnet, seems to be making exactly the same protest and claim; his lines might indeed stand as a versification of Bruno's words. Placed in the context of the *Eroici furori* dedication they seem to tell us that Sidney, like Bruno, uses the emblematic rather than the allegorical mode of speech in his poetry.<sup>84</sup>

Whilst, therefore, the commentary on the *Eroici furori* poems cannot be a complete substitute for a commentary by Sidney himself on the meanings latent in his sequence, it may be used as an invaluable guide. For there is no doubt whatever that the *Eroici furori* and *Astrophel and Stella* come out of the same atmosphere.

The poet Samuel Daniel was very closely connected with Sidney's circle; in fact some of his sonnets appeared, mingled with Sidney's, in the first pirated edition of *Astrophel and Stella*.

Daniel was a pioneer in introducing the Italian emblem literature into England, for his English translation of Paulus Jovius on devices<sup>85</sup> was published in 1585,<sup>86</sup> the same year as the *Eroici furori*. An anonymous friend of Daniel's who signs himself 'N.W.' writes an introduction<sup>87</sup> to the work which mentions Bruno and also shows a wide acquaintance with the emblem literature. 'N.W.' is well-versed in the Renaissance theories on the connections of emblems with Egyptian hieroglyphs, he mentions by name a number of well-known emblematisers and theoretical exponents of

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the science of imagery,<sup>88</sup> he congratulates Daniel on his knowledge of Alciati and refers to Mignault's commentary on the latter's emblems. With such an apparatus as this, 'N.W.' would have been in a good position to read and understand the works of Bruno, to whose recent visit to Oxford he alludes in terms which show that both he and Daniel had heard Bruno debating in the Oxford schools.<sup>89</sup>

Daniel, therefore, was both imbued with emblematic learning and in close touch with the Bruno-Sidney atmosphere. He must fully have realized the possible emblematic meanings of the conceits with which his *Delia*,<sup>90</sup> first printed in 1592, abounds.

Here, for instance, is Daniel's version of the stars-eyes:

Oft do I marvel, whether Delia's eyes,  
Are eyes, or else two radiant stars that shine?  
For how could Nature ever thus devise  
Of earth, on earth, a substance so divine?  
Stars, sure, they are! Whose motions rule desires;  
And calm and tempest follow their aspects:  
Their sweet appearing still such power inspires,  
That makes the world admire so strange effects.  
Yet whether fixed or wandering stars are they,  
Whose influence rules the Orb of my poor heart?  
Fixed, sure, they are! But wandering make me stray  
In endless errors; whence I cannot part.  
Stars, then, not eyes! Move you, with milder view,  
Your sweet aspect on him that honours you!<sup>91</sup>

The second line states the emblem; two stars in the form of two radiant eyes. The fourth line reminds one of Bruno's remark, quoted by Florio, 'non son femine, non son donne, ma, . . . son di sustanza celeste.'<sup>92</sup> Daniel, however, is not using the darts-from-the-eyes form of the stars-eyes emblem, but the form which emphasizes the power of the twin stars to calm storms:

And calm and tempest follow their aspects.

Many examples might be quoted of Daniel's use of the darts or rays from the eyes conceit. For instance:

The dart transpiercing were those crystal eyes.<sup>93</sup>



He also twice uses the image of the worn face of the lover:

Delia herself, and all the world may view  
Best in my face, where cares hath tilled deep furrows.<sup>94</sup>

And,

Read in my face, a volume of despairs!  
The wailing Iliads of my tragic woe:  
Drawn with my blood, and painted with my cares,  
Wrought by her hand that I have honoured so.<sup>95</sup>

There is much emphasis throughout the sequence on the pride and cruelty of Delia, and on the lover's sufferings.

From this brief study of Daniel and his poetry from the emblematic point of view one gains the impression, first, that external circumstances strongly suggest that he had every opportunity of being in this movement, and, secondly, that in his poetry he uses a range of emblem-conceits which is very close indeed to that used in the *Eroici furori*.<sup>96</sup>

Sir Fulke Greville, Lord Brooke, was Sidney's most intimate friend and biographer, and it was his house which Bruno made the setting for his debate with the Oxford doctors, as described in the *Cena de le ceneri*.<sup>97</sup> With Greville, therefore, we are still in the same atmosphere, still in this circle of poets and philosophers grouped round Sidney.

Greville's sonnet sequence was not printed until 1633, when it appeared with the explanation that it had been 'written in his youth and familiar exercise with Sir Philip Sidney'.<sup>98</sup>

It is difficult to find any trace of humanity whatsoever in Greville's '*Caelica*' (a rare Latin adjective, meaning, of course, 'heavenly' and derived from *caelum*) or in his 'Cynthia' and 'Myra', the variant names which he sometimes uses in the sequence. Greville's mind moves in a sphere of remote metaphysical abstraction in which the conceits are still used, but used in such a way that their visual, sensual form is, as it were, broken down into philosophical language.

For example, Greville's seventh sonnet is a miniature exposition of mutability — the constant changes of matter into new forms, the passing of time, the movements of the elements. But in the last two lines we reach Myra's eyes and these, we are told, never vary. The

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sonnet opens with the line 'The world that all contains is ever moving', but this is not an allusion to the Copernican theory, as one might think, for the rest of the poem is built on the old cosmology, with the stars turning on the spheres and the earth standing still. The 'world' of the first line is not the earth but the *caelum*, with its constant ordered movements. Yet although Greville is not a Copernican, the philosophy of mutability which he expounds is very characteristic of Bruno, though of course very far from being peculiar to him:

The World, that all containes, is euer mouing,  
The Starres within their spheres for euer turned,  
Nature (*the Queene of Change*) to change is louing,  
And Forme to matter new, is still adiourned.

Fortune our *phansie-God*, to varie liketh,  
Place is not bound to things within it placed,  
The present time vpon time passed striketh,  
With *Phoebus* wandring course the earth is graced.

The Ayre still moues, and by its mouing cleareth,  
The Fire vp ascends, and planets feedeth,  
The Water passeth on, and all lets weareth,  
The Earth stands still, yet change of changes breedeth;

Her plants, which Summer ripens, in Winter fade,  
Each creature in vnconstant mother lyeth,  
Man made of earth, and for whom earth is made,  
Still dying liues, and liuing euer dyeth;  
Onely like fate sweet *Myra* neuer varies,  
Yet in her eyes the doome of all Change carries.<sup>99</sup>

It seems that what one has here is in effect the familiar conceit of the stars-eyes shining out amidst the tempest. Yet instead of the visual image of the ship tossing at sea to which the appearance of the twin stars brings a sense of calm after storm, or the allied image of the star-like eyes which clear the storm-clouded mind of the lover, we have here the troubled sea of Mutability with which, in the last lines, are contrasted the eyes of Eternity. If this is a correct interpretation, Greville is here using the lyrical statement in conjunction with the philosophical statement in exactly Bruno's manner.

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In the sonnet which immediately follows we find allusions to the worn face in the word 'furrows' twice repeated and in the word 'wrinkles'. But the image is so broken up and confused with the leading conceit in the sonnet (which is that of the fire from the heart and the tears from the eyes – the debate of the heart and the eyes – a conceit which we have not here studied but which is very deeply elaborated by Bruno<sup>100</sup>) that we form no clear poetic picture, and instead of flowing with the easy grace of a Sidney or a Daniel, this poem strikes one as difficult:

Selfe-pitties teares, wherein my hope lyes drown'd,  
Sighs from thoughts fire, where my desires languish,  
Despaire by humble loue of beauty crown'd,  
Furrowes not worne by time, but wheelles of anguish;  
Dry vp, smile, ioy, make smooth, and see  
Furrowes, despaires, sighes, teares, in beauty be.

Beauty, out of whose clouds my heart teares rained,  
Beauty, whose niggard fire sighs' smoke did nourish,  
Beauty, in whose eclipse despaires remained,  
Beauty, whose scorching beames make wrinkles flourish;  
Time hath made free of teares, sighs, and despaire,  
Writing in furrowes deep; *she once was faire.*<sup>101</sup>

It is in exactly this obscure and broken kind of way that Bruno uses the conceits, and one cannot but think that those interested in Greville's remarkable poetry would find the commentary to the *Eroici furori* a great help.

Greville was a convinced Calvinist and firm believer in predestination and faith without works. One almost fancies that Greville's Calvinism can be detected in his use of the conceits:

And thou O *Loue*, which in these eyes  
Hast married *Reason* with *Affection*,  
And made them Saints of beauties skyes,  
Where ioyes are shadowes of perfection,  
Lend me thy wings that I may rise  
Vp not by worth but thy election;  
For I haue vow'd in strangest fashion,  
To loue, and neuer seeke compassion.<sup>102</sup>



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The wings of Greville's winged heart symbolize, not the worth of his own efforts, but election. It will be remembered that in Bruno's use of the conceit of the winged heart, the wings represented the two powers inherent in the soul, the powers of the intellect and the will — reason and affection. Greville places these in the stars-eyes above him in the sky, towards which he aspires on wings of election.

Greville's sonnet sequence is an early specimen of the 'metaphysical' style in poetry. It should be realized that the emblematic conceit carries within itself the *potentiality* for this metaphysical development, even when its possible metaphysical translation does not appear. For example, Daniel's sonnet to the stars-eyes may have had, in his own mind, an alternative metaphysical form which does not come to the surface of the poem. But in Greville's poem on the ever-moving world, the metaphysical translation becomes audible and visible and fills out the framework of the 'eyes' conceit with philosophical imagery. Metaphysical love poetry uses *simultaneously* those lyrical and philosophical statements, which, in a symbolic system, such as that formulated by Bruno, are thought of as *alternative* ways of saying the same thing.

Michael Drayton prefixed to his sonnet sequence entitled *Ideas Mirrour* a dedicatory poem in which he announces that he is not going to imitate Petrarchist poetry, nor merely borrow from Desportes or from Petrarch as so many other writers do. He underlines this by concluding the poem with a quotation from the 'anti-Petrarchist' sonnet in *Astrophel and Stella*:

Divine Syr Phillip, I avouch thy writ,  
I am no Pickpurse of anothers wit.<sup>103</sup>

Here he seems openly to enlist himself under the banner of 'Astrophel' by using the divine Sir Philip's own words of contempt for ordinary imitative Petrarchism.

But when taken at its face value, Drayton's 'anti-Petrarchism' has been even more puzzling to his admirers than that of Sidney. For whilst Sidney still uses the conceits, though professing that he will not do so, he uses them with an air of his own. Whereas Drayton's *Ideas Mirrour* presents the reader with a large repertory of the most conventional conceits reproduced with almost slavish accuracy.

Here, for example, are the 'darts from the eyes':

ESSAYS ON GIORDANO BRUNO IN ENGLAND

Cupid, dumbe Idoll, peevisch Saint of love,  
No more shalt thou nor Saint nor Idoll be,  
No God art thou, a Goddesse shee doth prove,  
Of all thine honour shee hath robbed thee.

Thy Bowe half broke, is peec'd with olde desire,  
Her Bowe is beauty, with ten thousand strings,  
Of purest gold, tempred with vertues fire:  
The least able to kyll an hoste of Kings.

Thy shafts be spent, and shee (to warre appointed)  
Hydes in those christall quivers of her eyes,  
More Arrowes with hart-piercing mettel poynted,  
Then there be starres at midnight in the skyes.  
With these, she steales mens harts for her reliefe,  
Yet happy he thats robd of such a thiefe.<sup>104</sup>

The exactness with which Drayton has elaborated the detailed form of this conceit can be realized by comparing this sonnet with Vaenius' illustration of the same theme (Pl. 19c). The whole little scene of Cupid reduced to idleness whilst the lady's eyes perform the work of his bow and arrows upon the suffering lover is described by Drayton which makes his sonnet, both in form and style, a perfect counterpart to Vaenius' plate.

Is it possible that the dedication to the *Eroici furori* might provide a clue to Drayton's anti-Petrarchist Petrarchism also? Is *Ideas Mirrour* a translation of the Canticle into Petrarchan emblems?

Drayton began his career as a poet with a volume of spiritual poems called *The Harmony of the Church* (1591) which includes a translation into English verse of the Canticle.<sup>105</sup> Drayton, therefore, had been studying the imagery of the Canticle at about the same time that he was writing his sonnet sequence.<sup>106</sup> Admiring Sidney as he did, it is more than probable that Drayton would have known of the *Eroici furori*, that revealing work which hinted at the existence of Sidney's poems seven years before their publication. And in the dedication of the *Eroici furori* he would have found an explanation by an anti-Petrarchist of the theory of using Petrarchan conceits with meanings corresponding to the allegorical interpretations of the Canticle.

Looking back now on the sonnet just quoted one may almost fancy that the 'anti-Petrarchist' theme is stated in the opposition between Cupid and the Lady. The Lady has vanquished Cupid,

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whose bow was pieced with old desire, and substituted for his broken bow her bow of Beauty tempered with Virtue. Is this not an emblem of the sublimation of desire?<sup>107</sup>

We know how the love emblems of Vaenius could turn into sacred emblems, and we have pointed out how Bruno's method differed from that of Vaenius in that the love emblem, to him, is already the sacred emblem. The possibility is worth thinking over very seriously that Drayton may be employing the same technique, representing by the eyes of the lady divine beauty and goodness and by the arrows from the eyes the influences of the divine working upon the soul.

It is interesting to compare Sidney's treatment of this theme<sup>108</sup> with that of Drayton. Sidney, like Drayton, identifies the lady with Beauty and Virtue and suggests the theme of sublimation:

O eyes! which do the sphere of beauty move;  
Whose beams be joys; whose joys all virtues be;  
Who while they make Love conquer, conquer Love.  
The schools where Venus hath learned chastity.

This corresponds to the conquest of Cupid by the Lady in Drayton's sonnet. But whilst the ground-work is the same there is a great difference in the styles of its presentation by the two poets. The visual impression derived from Sidney's use of this conceit consists of very little beyond the two stars in the form of two radiant eyes which are the focus of the lover's aspiration. The dart and ray imagery occurs but is not developed into a very definite picture. In fact, as we have suggested before, Sidney's use of the conceit is 'device-like' in its economy of material. His style is that of a Renaissance *impresa*. But Drayton provides us with the whole drama of Cupid robbed of his bow by the lady, the lady shooting the arrows from her eyes, and the prostrate lover. Sidney's style suggests Ruscelli; Drayton's style suggests Vaenius. Sidney is a Renaissance emblematicist; Drayton, a baroque emblematicist.<sup>109</sup>

We thus find in the Elizabethan poets the same moment of transition between Renaissance and baroque which was suggested as typical of Bruno's *Eroici furori*. Bruno's style, on the whole, is much nearer to Sidney's than to Drayton's; yet, as we pointed out before, his emblems sometimes anticipate the seventeenth-century manner, and it is interesting to find that the 'winged heart', which we took as an example of such anticipation, is an image which Drayton also uses:



ESSAYS ON GIORDANO BRUNO IN ENGLAND

My Hart imprisoned in a hopeles Ile,  
Peopled with Armies of pale jealous eyes,  
The shores beset with thousand secret spyes,  
Must passe by ayre, or else dye in exile.

He framd him wings with feathers of his thought,  
Which by theyr nature learn'd to mount the skye,  
And with the same he practised to flye,  
Till he himselfe thys Eagles art had taught.

Thus soring still, not looking once below,  
So neere thyne eyes celestiall sunne aspyred,  
That with the rayes his wafting pyneons fired.  
Thus was the wanton cause of hys owne woe.  
Downe fell he in thy Beauties Ocean drenched,  
Yet there he burnes, in fire thats never quenched.<sup>110</sup>

With the winged heart emblem, Drayton has combined the emblem of the eagle soaring so near the sun that it burns its wings.<sup>111</sup> This is not one which is actually used by Bruno in the *Eroici furori*, though the butterfly burning its wings in the flame is used by him with exactly the same meanings.<sup>112</sup> Drayton's winged heart turns into an eagle in mid-flight, and burns its wings in the brightness of the 'eyes' which represent the 'celestiall sunne'. Combined with all these images there is probably an allusion to the Icarus story.

But the strangest thing is the cage. The cage for Drayton appears to mean England, in which he is imprisoned and surrounded by spies and from which his heart can only escape by soaring. This poem appears to reflect Drayton's determination to escape by an interior mysticism from external circumstances in England which he feels to be unsympathetic. It will be noticed that the wings of his heart are the innate powers which he learns to use; they are not the wings of predestination, as in Greville's case. Drayton is certainly not a Calvinist, and the defence of the pre-Reformation Catholic tradition which he openly permits himself in several passages of his *Polyolbion*<sup>113</sup> suggests that he might have found Bruno's views on this matter<sup>114</sup> congenial. Drayton's sonnet on the winged heart escaping from the cage, like Bruno's emblem on this theme, anticipates the Counter Reformation sacred emblem.

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When placed in its proper sequence as representing a stage in the development of emblematic thinking, Bruno's *Eroici furori* is thus seen to be a work of the greatest importance to students of Elizabethan poetry.<sup>115</sup> Through its connections with Sidney, it forms a link between that poetry and some of the deepest currents of contemporary European thought and feeling;<sup>116</sup> and the relating of Bruno's emblems to the spiritual history of Europe helps to assess the moment in that history to which the poetic imagery of the Elizabethans also belongs.

## RENAISSANCE PHILOSOPHERS IN ELIZABETHAN ENGLAND: JOHN DEE AND GIORDANO BRUNO

THERE WERE TWO major philosophers of the Renaissance whose lives and work impinged upon Elizabethan England; one was John Dee; the other was Giordano Bruno. Both were 'occult' philosophers, ultimately descending from the Hermetic-Cabalist core of Renaissance Neoplatonism; both were admirers of Pico della Mirandola and Marsilio Ficino, the Italian founders of the movement; both were also profoundly affected by the German continuers of the movement, particularly by Henry Cornelius Agrippa.

I have often asked myself whether the Elizabethans were able to absorb easily the influences of both Dee and Bruno; whether they saw them as fundamentally opposed, or whether they were able to combine the Bruno influence with that of Dee in some satisfactory general solution. I do not think that anyone has as yet asked this question. The present essay is a first attempt at looking at Dee and Bruno together, as both, in their separate ways, in contact with Elizabethan England.

Bruno was in England for only two years (1583-5) yet during that lightning visit he published dialogues in Italian reflecting the religious and political situation in England and designed to attract the attention of leading Elizabethan personalities. Bruno passed like a comet over the Elizabethan scene, but his influence may well have been profound owing to the brilliance of his personality and powers of expression.

Dee was a native of England (or rather of Wales) who lived in the British Isles during the whole of his life (1527-1608), except for



very extensive travels abroad. He was firmly based on the English court, with its knights, scientists, politicians and poets. Yet Dee was far from stationary: a much travelled man, he was at home in Europe, at the centre of an important network of philosophers and thinkers with enthusiastic politico-religious aspirations. Bruno also was an international philosopher, an enthusiastic missionary of some kind, having no settled base like Dee, but with wide European contacts. For Bruno, his visit to Elizabethan England was but one episode in a far-flung career. For Dee, the Elizabethan court was his spiritual home but seen in a wide continental setting – Italy, France, Germany – which was also the setting for Bruno's mind. Both these two philosophers were at home in the large world of European politico-religious movements of the latter part of the sixteenth century, but the one had a fixed base in England, the other was a temporary visitor who yet seemed to find in Elizabethan England an atmosphere congenial to his outlook.

This pattern of congruence yet contrast comes out in the details of the careers of the two men, the curious way in which they seem to overlap without coalescing. Bruno was present at the debates organized at Oxford in June 1583 for the entertainment of the Polish Prince Alasco, then on a visit to England. After the Oxford visit, Philip Sidney brought Alasco to call on Dee at Mortlake,<sup>1</sup> a visit which highly gratified Dee as a mark of particular favour and recognition of his learning and scholarship.

As regards 'the Sidney circle', it is clear that the circle, in the person of Sidney himself, recognized Dee as the important Elizabethan philosopher to present to the visiting Polish prince. As regards Bruno, it would seem from his own works, published in England, that he regarded himself, hopefully, as belonging to the Sidney circle. But what actually was the attitude of the circle is a little ambiguous.

Almost immediately, after the momentous visit of Sidney to Dee at Mortlake, Dee left England for his continental mission, which included a visit to Alasco in Poland. During the whole two years of Bruno's time in England, Dee was absent abroad.

Thus Dee and Bruno are moving rather close to one another in England in 1583, but there is no record that they met. Bruno pursues his mission in England in the following years whilst Dee is absent abroad, pursuing his own mission. What was the relation between the two men and their missions? Why did Dee leave England immediately after Bruno's arrival? The possibility cannot be entirely ruled out – though there is no evidence for it – that Dee

might have been avoiding Bruno.

Bruno finally left England for France in October 1585, thereafter continuing his travels in Germany, and arriving early in 1588 at Prague,<sup>2</sup> hoping to attract the notice of the occultist Emperor, Rudolf II. Meanwhile Dee had been in Poland with Alasco, and had reached Prague, accompanied by Edward Kelley, in 1586.<sup>3</sup> Thus both Bruno and Dee visited Prague on their travels, both intense occultist missionaries, both hoping to find favour with the imperial patron of the occult, Rudolf II. Well-informed circles in Prague were certainly aware of the nature of the missions of Bruno and Dee. Flattering offers were made to entice Dee to Rome, which he cautiously avoided.<sup>4</sup> Bruno, however, was to fall into the trap of Mocenigo's invitation.<sup>5</sup> He returned to Italy in 1592, and met his death at the stake in Rome in 1600, a martyr for something – shall we say for Renaissance occult philosophy and magic?

The Prague situation repeats, though in a more menacing form, the situation of Bruno and Dee in England in 1583. Both these Elizabethan occult philosophers were pursuing continental missions which involved visits to Prague, though apparently they did not amalgamate in any way. Dee was to continue his mission until his return to England in 1589, where he was put under a cloud but not burned at the stake. Bruno went on, eventually, to Italy where mortal danger awaited him.

During these last decades of the sixteenth century there was going on, both an intensification of the movement of Renaissance occult philosophy (included within Renaissance Neoplatonism), and an intensification of the reaction against it. Platonism became suspect, particularly in its association with Cabala.<sup>6</sup> The movement set in motion by Ficino and Pico had developed in ways considered dangerously heretical by the Council of Trent and the Catholic reaction. (There had, of course, been orthodox opposition to the movement from its inception.) Francesco Patrizzi, a late Renaissance Neoplatonist, discovered to his surprise that Neoplatonism could not be admitted as a Christian philosophy in Rome. Giordano Bruno had hoped that even his extreme version of occult philosophy could be combined with an ostensibly Catholic version of reform, only to be even more fatally disappointed in Rome. And even in Protestant England the spirit of reaction overtook Dee. The philosopher who had inspired the Sidney circle, the centre of the science of the Elizabethan age, found himself on his return to England in 1589 no longer at the centre of Elizabethan movements, but somewhat ostracized, relegated to Manchester under suspicion,

his former friends afraid to consult him openly.<sup>7</sup> What happened to Patrizzi, Bruno and Dee in the late sixteenth century was symptomatic of the age. The burning of Bruno was a symbol of the reaction against the daring spiritual adventures of the Renaissance.

This reaction was not confined to the hardening of opinion against the occult in post-Tridentine Catholicism. It was also strongly present among reformed theologians, and particularly in Lutheran Germany. The Hermetic-Cabalist influences from Italy had powerful repercussions in Germany, as recent research is bringing to light. The Abbot Trithemius was a major exponent of these influences in Germany. Trithemius was an ardent admirer of 'Hermes Trismegistus', of Ficino, and, above all, of Pico della Mirandola.<sup>8</sup> Trithemius developed Pico's Cabalism in an extremely magical direction; the fifth book of his *Steganographia* teaches the techniques of angel-conjuring. Cornelius Agrippa was the disciple of Trithemius and became the chief German exponent of Magic and Cabala in his influential text-book on these subjects, the *De occulta philosophia*. The strong reactions of Martin Luther against what he believed to be invocations of the devil became involved, in ways recently studied by Frank Baron, with the historical Faust, and with Agrippa as a supposed disciple of Faust.<sup>9</sup>

It is important to remember that both Dee and Bruno were influenced not only by Ficino and Pico, but also by Agrippa, their German disciple. This is one of the many complex strands in the situation which have to be borne in mind as we try to think about Dee and Bruno in relation to Elizabethan England. The occult philosophy, Italian in origin, had been coloured by its passage through Germany, and by the reactions, both Catholic and Protestant, against it.

In what follows, I make a preliminary attempt at comparing the ideas of Dee and Bruno, trying to determine where they agree or differ, as a necessary preliminary to trying to assess their influence in England.

An important line of approach is through comparing the attitudes of Dee and Bruno to the *De occulta philosophia* of Agrippa, that handbook of occult philosophy which combines the natural magic of Ficino with the Cabalist magic of Pico in one daring statement. Agrippa and his work, as an extreme example of the movement, became the chief target of the reaction both Catholic and Protestant. Though Agrippa believed, with all Christian Cabalists, that Cabala had confirmed the truth of Christianity, yet he was to incur the violent disapproval of the reaction as the Faust figure, ex-



hibiting the damnation which threatened students of the occult philosophy. His *De occulta philosophia* can thus be used as a kind of touchstone or test of the positions of philosophers like Dee and Bruno.

Agrippa's book, like his philosophy, is divided into three worlds: the elemental world of terrestrial nature; the celestial world of the stars; and the supercelestial world of spirits, or intelligences or angels.<sup>10</sup> Through all three worlds there ran, as the connecting link, number. In the lower elemental world Agrippa studied number as technology or applied science (or magic). In the celestial world his study of number was related to astronomy, astrology, optics, and the mathematical sciences generally. In the supercelestial world, he believed that he knew the secret of conjuring angels by numerical formulations in the tradition of Pico, and of Trithemius his teacher.

Thus, this fantastic outlook could include intensified cultivation of the mathematical sciences (genuine mathematical sciences) and intensified superstition as to the possibility of extending science to the supercelestial world and thereby conjuring angels – the spirits who after all knew at first hand how the universe works and whose assistance would confer on the scientist-magus wonderful power for effecting some total scientific-religious reform.

This is the outlook into which Dee fitted his scientific and mathematical studies.<sup>11</sup> In his Preface to the English translation of Euclid, he speaks of all things being divided into things Supernatural, things Natural, and a third or middle kind called things Mathematical. These are Agrippa's three worlds; Dee is following Agrippa's classification. And he followed Agrippa by attempting to conjure angels in the supercelestial world. Agrippa's book was used by Dee and Kelley in their elaborate Cabalistic calculations.

It must be emphasized that Dee believed himself to be an ardent Christian, and was extremely shocked and hurt when contemporaries refused to believe in the angelic nature of the spirits he consulted. Dee's Christianity (as I have discussed elsewhere) was based on the traditions of Christian Cabala.<sup>12</sup> The Christian Cabalists, from Pico della Mirandola onwards, all believed that Cabala could confirm the truth of Christianity,<sup>13</sup> that Cabalistic manipulations of Hebrew letters in the Divine Name could confirm that Jesus is the name of the Messiah. This belief is implied in the third book of Agrippa's *De occulta philosophia* which shows that Agrippa, like Dee, believed himself to be a Christian Cabalist.<sup>14</sup> Hence followers of Agrippa, like Dee, could feel themselves justified in calling themselves Christians.

If we now turn to Giordano Bruno, the philosopher whose career runs so strangely close to that of Dee, we find that Bruno, too, was an Agrippan, a deep student of Agrippa's magic, his mind and outlook impregnated with the Agrippan magical philosophy – that extreme expression of the Renaissance occult philosophy descending from Pico and Ficino.

That there is an influence of Agrippa on Bruno was suggested as long ago as 1903 by Lewis McIntyre,<sup>15</sup> to mention one of the writers on Bruno who have made this point. The most recent study of Agrippa, the valuable book by Charles Nauert,<sup>16</sup> discusses at some length Agrippa's influence on Bruno. He points out, as McIntyre has also done, that Bruno's *De monade* is heavily influenced by Agrippa's *De occulta philosophia*. He argues that Agrippa's exposition of a magical world view, intimately connected by occult bonds, is profoundly consistent with Bruno's outlook.

Nauert's book was published in 1965, one year after my *Giordano Bruno and the Hermetic Tradition* (1964) which he had not seen. Neither had I, of course, seen Nauert's book, not yet published in 1964. My arguments strongly support his view of a deep influence of Agrippa on Bruno, not only in a general way but in a quite precise way. I showed by exact quotation that Bruno was taking the details of his magic from Agrippa, copying his magic images and repeating his incantations. In the *Explicatio triginta sigillorum* there is a defence of 'good' magical religion which is based on Agrippa.<sup>17</sup> In the *Cena de le ceneri* the description of the ascent of the magus through the spheres of the universe is based on Agrippa's passage on the ascent.<sup>18</sup> One could go on in this way (as I have done in *Giordano Bruno*), looking to Agrippa as a source for Bruno's major themes of universal animation, of magical correspondence, and showing that the actual magic – the magic images and incantations – which go with this philosophy in Agrippa is present in Bruno, who copies the magic images and the magical recipes.<sup>19</sup> Of course such themes and such images could have reached Bruno from the general Hermetic tradition, but it would seem that Bruno tended to rely on Agrippa, as the easily accessible printed handbook.

So then – returning to our comparison of Dee and Bruno – both these Elizabethan magi were profoundly influenced by Agrippa. Was their outlook, then, the same? Would Dee, his pupils and his disciples, have immediately recognized Bruno as entirely congenial, as a foreign visitor whose philosophy and outlook was entirely compatible with their own?

Though both could be called occult philosophers, there were

certain basic differences between the attitudes to Christianity of Agrippa and Bruno. Agrippa believed that Cabala confirmed the truth of Christianity. Bruno was not a Christian; he believed that the 'Egyptian' religion, supposedly taught by Hermes Trismegistus, was superior to both Judaism and Christianity. This basic difference was related to the different interpretations given by Bruno and Agrippa of the Hermetic-Cabalist tradition. Let me try to put this problem in as simple terms as possible.

That Agrippa was a *Christian* Cabalist is clear, not only in the Cabalist section of the *De occulta philosophia* but also in the *De vanitate*, that strange work in which Agrippa rejects all knowledge as vain in an apparently complete scepticism. But if the work is read carefully to the end it will be found that Agrippa accepts one kind of knowledge as not vain, and that is knowledge of the Christian gospels.<sup>20</sup>

I believe that Philip Sidney, Dee's most eminent disciple, had understood and approved Agrippa's meaning in the *De vanitate* when in the *Defence of Poetry* he makes the remark that 'Agrippa will be as merry in showing the vanity of science as Erasmus was in commending Folly'. And Sidney goes on to say that beyond the sceptical merriment of the two scholars there was something else. 'But for Erasmus and Agrippa', says Sidney, 'they had another foundation than the superficial part would promise.'<sup>21</sup> I interpret this to mean that this 'other foundation' would be the Gospel, alone exempt from scepticism according to both Erasmus and Agrippa.<sup>22</sup>

Far more detailed investigation of the important problem of the influence of Agrippa in England is needed than I can indicate here. But the suggestion is that Sidney would have seen Agrippa as a *Christian* Cabalist, whose sceptical mysticism led him to acceptance of Christianity, a position comparable to the mystical scepticism and the Christian humanism of Erasmus.

This attitude may have emanated from Dee's teaching, for Dee was a follower of Agrippa, not only in his pursuit of the occult sciences but also in his Christianity. Dee always firmly believed that he was a Christian, that his angel-summoning was a pious activity. For Christian Cabalists, their daring ventures into the occult sciences were protected by the holy Cabalist side of their activities. This protection shielded them, they believed, from the dangers of magic.<sup>23</sup>

Now Giordano Bruno was not a Christian, and this fact constitutes a basic difference between Dee's occult philosophy and that of Bruno. By a curious switch of the religious outlook of more



orthodox occult philosophers like Agrippa and Dee, Bruno believed that the ancient 'Egyptian' religion descending from the ancient Egyptian sage, Hermes Trismegistus, was superior to Judaism and Christianity, that the ancient Egyptian truth had been corrupted by both Jews and Christians, and that the true universal reform expected by occult philosophers, like himself, consisted in a return to Egyptianism, to the ancient Egyptian magical religion described in the Hermetic *Asclepius*.<sup>24</sup> This was a daring, and, one must think, shocking alteration of the orthodox history of occult philosophy, according to which Hermes Trismegistus and his 'Egyptian' religion were prophetic of Christianity, and could be easily combined with Christian Cabala. One cannot but think that, if the Elizabethan disciples of Dee had grasped the drift of Bruno's teaching they would have been alarmed. For though Bruno quotes at length from Agrippa's Cabalist arguments he is not using his Cabalism as holy protection against this darker 'Egyptian' magic.<sup>25</sup> Bruno's Cabalism is merely an adjunct to his wholesale acceptance of Hermetic or Egyptian magic. This outlook may well have seemed alarming to Christian occult philosophers of the Agrippa-Dee type as they listened to, or read, the brilliant harangues of the strange foreign philosopher who had landed on their shore.

Another rather pronounced difference from Dee's teaching is Bruno's distrust of 'mathematics'. As we saw, Dee formulated within his version of occult philosophy an intensive cultivation of mathematical sciences, of all the mathematical disciplines. Dee's knowledge of mathematics was part of his equipment as a professional astrologer, but expanded, in ways not yet clearly understood, by his Cabalist studies. Bruno, on the contrary, proclaimed himself to be 'against' mathematicians. What this meant exactly, is far from clear. Bruno's little book 'against mathematicians' was published at Prague in 1588,<sup>26</sup> two years after Dee, the astrologer and mathematician, had visited that city. Possibly he meant by this publication to disassociate himself from the mathematical Elizabethan magus and astrologer. However that may be, Bruno's slant 'against mathematics' is curiously at variance with Dee's insistence on the sciences of number as of fundamental importance.

We thus have the situation that Bruno the extreme 'Egyptian' occultist who relegates Judaism and Cabala to second place is less scientifically advanced than Dee the mathematician and Cabalist. Dee's version of occult philosophy, with its mathematical slant, was moving more in the direction of Isaac Newton than was Bruno's thought. Dee's firm grounding in astrology, underlying his de-

velopments of Cabala and other occult interests, gave definition to his emphasis on mathematics. Dee really was a mathematician, which Bruno was not.

There is another important difference between Agrippa and Bruno. Agrippa, like Reuchlin his teacher, totally rejected scholasticism. He wished to provide a philosophy more powerful than outworn scholasticism — namely the occult philosophy — to take the place of scholasticism as the philosophy compatible with Christianity.<sup>27</sup> Bruno, with his Dominican training, still respects Thomas Aquinas, though his world-view is not that of an Aristotelian but that of a magical animist. Bruno as it were formulates magical animism as a philosophy in such a way as to make him a kind of magical scholastic (like Campanella).

This side of Bruno might well have looked suspicious in Elizabethan England as verging too much in a Catholic direction, an impression which would have been strengthened by Bruno's attack on Protestant Oxford, though with some aspects of this attack members of the Sidney circle would have been in agreement, particularly Dee himself. For Dee admired and studied the works of pre-Reformation Oxford scientists and philosophers and deplored their neglect. Bruno's defence of the thinkers of pre-Reformation Oxford<sup>28</sup> might well have been approved by the Sidney circle who would have been taught by Dee to honour Roger Bacon and his school.

To return to the influence of Agrippa on Dee and Bruno. One may perhaps see the Agrippa influence as operating in different directions on the two philosophers. Dee absorbs the mathematical Cabalism which he believed protected by Judaic influences, which he deeply respected. Bruno is a Catholic (though non-Christian) occultist, preferring Egyptianism to Judaism and using his scholastic training towards the formulation of daring philosophical hypotheses, heliocentricity and earth movement, which he interpreted as expressive of a magical animism. Though Dee was interested in Copernicanism,<sup>29</sup> he never proclaimed himself a philosopher of heliocentricity, nor used the sun-centred universe as a symbol of Hermetic reform, as did Bruno.

Though Dee was abroad whilst Bruno was in England, there is a curious account, written by Bruno himself, which is something like a confrontation between Dee's disciples and Bruno. This is the famous *Cena de le ceneri*, or *Ash Wednesday Supper*, published in England in 1585, which describes a debate on the subject of the Copernican theory.<sup>30</sup> Two Oxford doctors had been invited by Fulke

Greville to meet and argue with Bruno on this subject. Greville himself was present at the debate and probably also another English knight and courtier, Philip Sidney. Both Greville and Sidney had been taught by John Dee. Bruno ran into difficulties with the Oxford doctors over his exposition of the Copernican theory. 'The gentlemen who were present' demanded that the book of Copernicus should be brought to check Bruno's statements. Bruno claimed that the book proved him right but he was really quite wrong in reporting Copernicus as having said, not that the moon revolves round the earth, but that both revolve on the circumference of the same epicycle. Bruno claimed that the point at the centre of the epicycle on the diagram was not the earth but the point made by the foot of the compass in describing the epicycle. Those present at the debate, dissatisfied by Bruno's confidence in his error, 'went back to mumbling in their own language'.<sup>31</sup> Among these dissatisfied mumblers would presumably have been, not only the Oxford doctors, but Greville and Sidney. It would appear therefore that the disciples of Dee may not have been favourably impressed by Bruno's astronomical science.

But, as I have argued and has now been admirably expounded by Gosselin and Lerner in their English edition of *The Ash Wednesday Supper*, the whole debate about a sun-centred cosmology was a metaphor for Bruno's religious teachings, for his 'Hermetic' religious mission. The rise of the Copernican sun heralded the rise of a sun of magical religion which should solve all the problems of the age by its illumination. Another account of Bruno's debate at Oxford states that it was about Marsilio Ficino's magical philosophy, and that the book sent for at the debate was Ficino's *De vita coelitus comparanda*.<sup>32</sup> The sun-centred universe was the symbol of Bruno's vision of a universal magical religion, inspired by the works of 'Hermes Trismegistus'. This revived 'Egyptian' religion was, for Bruno, somehow compatible with Catholicism, reformed in a magical direction. The leader proclaimed by Bruno of this Hermetic-Catholic reform was Henri III of France, on whose behalf he was appealing to Elizabethan Englishmen.

How does Bruno's mission in England compare with the Hermetic mission which Dee was preaching on the continent? I do not think anyone has as yet tried to think seriously about this. I hazard a few suggestions.

The religious centre of Dee's mission was the mysterious *monas hieroglyphica*, an emblem of unification and return to the One, which contained strong Cabalist, alchemical and mathematical



ingredients but which, as a whole, must have been seen by Dee as fully compatible with Christian Cabala, in which he profoundly believed. It was more compatible with a reforming Puritan slant on the situation than was Bruno's deeply 'Egyptianized' Catholicism. Dee's mission encouraged the 'mathematical' outlook; the *monas hieroglyphica* would lead more in that direction than the 'Egyptian' sun of Bruno's revelation. Dee's heroine was the reformed Elizabeth of England; Bruno's the obscurely Catholic King of France. And yet, the whole object of both Hermetic missions was to dissolve differences. Bruno's 'Egyptianism' is aimed at drawing together Elizabeth and Henri in an occultism which should go deeper than doctrinal differences. Dee's Cabalistic *monas* also contained politico-religious aims of unification.

It does not seem to me, however, that Dee's *Christian* Cabalist movement would have been less alarming to Elizabethans than the non-Christian 'Egyptianized' Catholicism of Bruno.

Where Bruno and Dee's influences would coalesce in Elizabethan England would be in the politico-religious sphere. Both these representatives of Renaissance occult philosophy were against the Spanish-Hapsburg version of Counter Reformation, against the reaction which was suppressing Renaissance philosophy and magic, or — to use that vague term — Renaissance Neoplatonism in Europe. Dee's vision of an extended influence for Queen Elizabeth I in an imperial theme, as Dee and Edmund Spenser built it up, stood for the support of magical Neoplatonism, a late stand for the Renaissance against the reaction.

With this politico-religious orientation of Elizabethan England, Bruno was in entire agreement, as a continental magus opposed to the Spanish-Hapsburg version of Counter Reform. Hence Bruno's vast vision in the *Spaccio della bestia trionfante* of the expulsion from the constellations of tyrannical influences and their replacement by the liberalism of reform was a vision with which the Sidney circle could be in agreement, and it was, in fact, dedicated to Sidney. Bruno echoes, both here and in other works published in England, the chivalrous cult of the Queen and the presentation of her as a messianic figure. In this politico-religious sphere, the Bruno and Dee versions of occult philosophy should have been able to fuse in support of a movement standing for Renaissance tradition against the forces of reaction.

It is indeed in the poetic expression of this outlook that Bruno draws closest to the Elizabethans. The 'heroic enthusiasms' which he expressed in Italian poetry when he was in England have a

tantalizing affinity with some of Sidney's sonnets. I explored some of these resemblances in an article published many years ago.<sup>33</sup>

Yet the whole question of Bruno's influence in England, and on Sidney, still presents puzzling unsolved problems. I now feel that the main occult influence on Elizabethan England was the Dee influence, and that the Bruno influence would have been subsidiary to that. Or perhaps one should look at the question as not so much an *influence* of Bruno on Elizabethan poets as a *reflection* by Bruno of the imagery of the Elizabeth cult.<sup>34</sup> When in the *Eroici furori* the enthusiasts come in bearing *impresa* shields with mystical devices, this is a reflection of the Accession Day Tilts. As I have suggested above, Bruno was linking the *Eroici furori* dialogues with the chivalrous romance woven around the Virgin Queen and echoing the imagery of the Elizabeth cult. Since it was Dee who had done so much to build up the Hermetic cult of Elizabeth, Bruno by adopting its imagery was acting in consonance with Dee's mission, or rather expanding it to include his master the French King.

The present essay has made yet another attempt at tackling these problems from the new aspect of comparison between Dee and Bruno as both Elizabethan magi. It is a first attempt at such a comparison; the results are inconclusive. The point which I would wish to emphasize in conclusion is the importance of Agrippa as an influence on both Dee and Bruno. The extraordinary strength of the influence of Agrippa's *De occulta philosophia* has not yet been fully realized. It was an influence which operated in diverse ways with differing results. It encouraged Dee's Cabalistical angel-conjuring. It encouraged Bruno's magical mnemonics. It was central not only to the spread of Renaissance magic but also to the reaction against it.

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## NOTES

### I THE ART OF RAMON LULL

I am indebted to R. Pring-Mill, who read this article in proof, for much valuable criticism.

- 1 For the editions of the *Ars brevis* see the admirable bibliography of the printed works of Lull by E. Rogent and E. Duràn, *Bibliografia de les impressions lullianes*, Barcelona, 1927 (index under *Art breu*). Also J. Avinyó, *Les obres autèntiques del beat Ramon Llull*, Barcelona, 1935, no. 121.

The editions most commonly found are those in Lull's *Opera* published by L. Zetzner at Strasbourg in 1598, 1609, 1617, which contain the *Ars brevis*, the spurious *De auditu Kabbalistico*, and the *Ars magna generalis ultima*.

- 2 Bibl. Ambrosiana Y. 21 Sup. See Avinyó, p. 212.
- 3 R. Lull, *Opera Omnia*, Mainz, 1721-42, in eight volumes numbered I-VI and IX, X (volumes VII and VIII were never published). Vol. I contains the *Ars magna et major* (not quite the same work as the *Ars magna* in the Zetzner editions) and the *Ars universalis*; vols III and IV contain the *Ars demonstrativa* and works related to it; vol. V, the *Ars inventiva veritatis*.

Salzinger died after editing the first three volumes. On the Mainz edition and its vicissitudes see A. Gottron, *L'edició maguntina de Ramon Llull*, Barcelona, 1915; Anton P. Brück, 'Der Mainzer Lullismus im 18. Jahrhundert' in *Festschrift für August Reatz*, Mainz, 1949, pp. 314 ff.

- 4 R. Lull, *Obras*, ed. J. Rosselló, M. Obrador and others, Palma,



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1901-3; continued as R. Lull, *Obres*, ed. M. Obrador, M. Ferrà, S. Galmés, 1906, in progress.

Several of the Catalan works have also been published in the series *Els Nostres Clàssics*, Barcino, Barcelona, 1927-35.

- 5 But vols XI-XIII (1917-26) contain the *Arbre de sciència* (Catalan version of the *Arbor scientiae* which is fundamental for the Art, see below, pp. 43-50); and vol. XVI (1932) prints the *Art demostrativa* (in the Catalan version), with the diagrams in colours.
- 6 C. Prantl, *Geschichte der Logik im Abendlande*, 1855, ed. of Leipzig, 1927, III, pp. 145-77.
- 7 M.-P.-E. Littré, 'Raimond Lulle' in the *Histoire littéraire de la France*, XXIX, Paris, 1885.
- 8 E. Allison Peers, *Ramon Lull*, 1929, pp. 110 ff.
- 9 See T. and J. Carreras y Artau, *Historia de la filosofía española*, Madrid, 1939-43, I, pp. 476 ff. The first two volumes of this history of Spanish philosophy are mainly devoted to Lull and they form the most up-to-date treatment of the subject.
- 10 *Op. cit.*, p. 75.
- 11 French translation, quoted by Littré, *op. cit.*, p. 25, of a stanza of Lull's *Desconort*, one of his best-known poems in Catalan (in R. Lull, *Poesies*, ed. R. d'Alòs, Barcelona, 1928, p. 77).
- 12 The following study of it is largely based on Paris, B.N. lat. 17827. This manuscript belonged to the library of the Parisian Franciscans in 1717 and was probably written in the sixteenth century.  
Other manuscripts of the work which I have examined will be found listed and discussed in Appendix II, pp. 70-5 above.
- 13 For instance, in the *Questiones atrabatenses*. See Lynn Thorndike, *History of Magic and Experimental Science*, New York, vol. IV, 1934, p. 8.
- 14 Paris, B.N. lat. 15450, fol. 89. On this manuscript see Appendix III, p. 75 above.
- 15 One of these is in the British Museum, Additional 16434.
- 16 *Op. cit.*, p. 309.
- 17 Paris, B.N. lat. 17827, fol. 2.
- 18 Thorndike, *op. cit.*, vol. II, p. 868.
- 19 There is no figure in Paris, B.N. lat. 17827. The one illustrated is based on the revolving figures in B.M. Additional 16434; in Collegio di San Isidro (Rome) 1/108; and in Paris, B.N. lat. 17822 (non-revolving). These all correspond, except that there is a mistake in the figure in the British Museum manuscript and that the figure in the Collegio San Isidro manuscript writes the planet names only once on their respective circles (in the others the names of all the seven planets are written on each circle). As the arrangement given in the San Isidro manuscript seems the best and clearest for working the

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figure, it is adopted here. The figure is set with all the planets in Aries.

20 The letters E F G on the figure mark the three ten-degree divisions of each sign. In the following abbreviated account of the method of the *Tractatus*, I have omitted the discussion of these letters.

21 Paris, lat. 17827, fols 3 ff.

22 Fol. 3.

23 Fol. 6<sup>v</sup>.

24 Fol. 52.

25 Fols 15<sup>v</sup> ff.

26 Fols 40 ff.

27 Fol. 40.

28 The major source of Lull's scientific interest in the elements is, of course, Aristotle, particularly the *De generatione et corruptione* with its exposition of 'contrarietas' among the elements and its insistence that each element is characterized by a single quality: 'Earth by dry rather than by cold, Water by cold rather than by moist, Air by moist rather than by hot, and Fire by hot rather than by dry' (II, 3, 331a), which Lull seems to develop into the distinction between the 'proper' and 'appropriated' qualities. Even the astrological side of the elemental theory could receive support from Aristotle, whose general view of the construction of the universe could be, and was, interpreted as favourable to astrology.

I am not in general attempting in this article to discuss the ancient sources of Lull's notions.

29 *Op. cit.*, vol. II, p. 865.

30 Fol. 3.

31 Fol. 13<sup>v</sup>.

32 Fol. 17<sup>v</sup>. Salzinger attached great importance to this passage and quoted it in his 'Revelatio' (see Lull, *Opera*, Mainz ed., I, p. 146). He must certainly have had access to a manuscript of the *Tractatus de astronomia*, on which he drew heavily for his 'Revelatio'; but the work was never published in the Mainz edition.

33 Fol. 21<sup>v</sup>.

34 Fol. 23<sup>v</sup>.

35 Fols 24, 21.

36 Fol. 19<sup>v</sup>.

37 Fols 20, 27.

38 Fol. 27.

39 Fol. 20.

40 Fol. 22.

41 Fol. 30.

42 *Loc. cit.*

43 Fol. 55<sup>v</sup>.

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- 44 *Loc. cit.*
- 45 Fols 56<sup>v</sup> ff.
- 46 Perhaps one might also call it 'astrological physics'. It is certainly not ordinary, or 'vulgar' astrology, but a science of nature which seeks to find simplified ways of demonstrating, or calculating, the relations between the stars and all that belongs to them in the lower world according to the astrological code.
- 47 See p. 11.
- 48 See above, p. 22.
- 49 Fol. 14<sup>v</sup>.
- 50 On this work, see Appendix I, above, p. 68.
- 51 *Opera*, Mainz ed., I, *Lib. princ. med.* (separately paged), p. 47.
- 52 *Ibid.*, pp. 2 ff.
- 53 *Ibid.*, p. 5.
- 54 In the preface to a work on graduated medicine, Paracelsus associates Lull with Avicenna (Theophrast von Hohenheim, *Sämtliche Werke*, ed. K. Sudhoff, Berlin, 1931, IV, p. 72).
- 55 G. Bruno, *Opera latina*, Naples, 1879-86, III, p. 577.
- 56 *Op. lat.*, *ed. cit.*, II, ii, p. 234.

Lull's medical ideas may be rather closely associated with those of his contemporary and compatriot Arnold of Villanova. On Villanova and 'pseudo-Lullism' see M. Batllori, S.J., 'El seudo-Lull y Arnau de Vilanova' in *Bolletí de la Societat Arqueològica Lulliana*, XXVIII, 1939-43, pp. 441-58.
- 57 For an excellent survey of the pseudo-Lullian alchemical tradition see F. Sherwood Taylor, *The Alchemists*, London, 1951.
- 58 Fol. 41<sup>v</sup>.
- 59 Fol. 42<sup>v</sup>.
- 60 Fols 52<sup>v</sup>-53.
- 61 Fol. 19.
- 62 Pp. 30 ff. (in the Mainz ed., vol. I).
- 63 *De figura elementalis*, pp. 60 ff. in the Mainz ed., vol. III.
- 64 The Latin text is in vols IX and X of the Mainz edition; the Catalan text in vols II-VIII (1906-14) of the Palma edition.
- 65 'Revelatio', pp. 3 ff. (in Mainz ed., vol. I).
- 66 Mainz ed., vol. IX, p. 68.
- 67 *Loc. cit.*
- 68 *Ibid.*, p. 70.
- 69 Peers, *Ramon Lull*, pp. 101-28.
- 70 R. Lull, *Obres*, Palma, I (1906), p. 133.
- 71 The best edition is that edited by S. Galmés in the series *Els Nostres Clàssics*, Barcino, Barcelona, 1931.

Neither the *Doctrina pueril* nor the *Libre de meravelles* were printed until the eighteenth century (the first edition of the former was in



1736, of the latter in 1750). They were, however, probably widely disseminated in manuscripts among the early Lullists. There is a manuscript of the *Libre de meravelles* in the British Museum (Additional 16428), and a manuscript of an Italian translation of it, made in the late fifteenth or early sixteenth century in the Biblioteca Marciana at Venice (MS. II, No. 109).

- 72 *Pròleg* (ed. of Barcelona, 1931, pp. 25-6).
- 73 Lib. I, cap. i (*ed. cit.*, I, p. 32).
- 74 Lib. I, cap. x (*ed. cit.*, I, p. 111).
- 75 Lib. III, cap. xviii (*ed. cit.*, I, pp. 156 ff.).
- 76 Lib. IV, cap. xviii (*ed. cit.*, II, p. 6).
- 77 Lib. IV, cap. xix (*ed. cit.*, II, pp. 8 ff.).
- 78 Lib. IV, cap. xx (*ed. cit.*, II, pp. 11-12).
- 79 Lib. V, cap. xxix (*ed. cit.*, II, p. 42).
- 80 Lib. V, cap. xxx (*ed. cit.*, II, pp. 44-7).
- 81 Lib. V, cap. xxxi (*ed. cit.*, II, pp. 48-50).
- 82 Lib. V, cap. xxxii (*ed. cit.*, II, pp. 53-62).
- 83 Lib. VI, cap. xxxvi (*ed. cit.*, II, pp. 79-83).
- 84 Lib. VIII, caps lxiii-lxxix (*ed. cit.*, III, pp. 104-76; IV, pp. 1 ff.).
- 85 Lib. IX, cap. cxvi (*ed. cit.*, IV, pp. 273-311).
- 86 Lib. X, cap. cxix (*ed. cit.*, p. 295).
- 87 See above, p. 22.
- 88 The best modern edition is that ed. S. Galmés, *Libre de Evast e Blanquerna*, Barcelona, 1935-54 (*Els Nostres Clàssics*).

There is an English translation by E. Allison Peers, *Blanquerna*, London, 1925.

The first edition of *Blanquerna* appears to have been at Valencia in 1521. The mystical work, the *Libre de Amic e Amat* (*The Book of the Lover and the Beloved*, included in Peers' translation of *Blanquerna*) formed part of the story of *Blanquerna*, being the meditations of its hero. There was an edition of *Blaquerna de amico et amato* at Paris in 1505 in a volume of Lull's mystical works which Lefèvre d'Etaples had printed (Rogent-Duràn, No. 35). The Latin text of the *Libre de Amic e Amat* was also published at Paris in 1585, and a French translation of it by Gabriel Chappuys in the following year (Rogent-Duràn, Nos 132, 133).

The tremendous revival of Lullism in sixteenth-century France, with which Lefèvre d'Etaples had much to do, must have grown up in the romantic atmosphere diffused by the mystical meditations of the hermit *Blanquerna*.

- 89 *Blanquerna*, Barcelona, 1935, vol. I, p. 33; trans. Peers, p. 40. (Peers mistranslates the title of the medical book studied by *Blanquerna* as *Book of the Principles and Steps to Medicine*. It was the *Libre dels principis e graus de medicina*, that is a book on medical principles

and graduated medicine, namely the *Liber principiorum medicinae*, or one of Lull's other medical works, all of which use 'grading'. The mistranslation reveals the astonishing lack of interest in Lull's medicine displayed even by his most devoted admirers.)

90 *Ed. cit.*, vol. I, pp. 295-6; trans. Peers, p. 218.

91 *Ed. cit.*, vol. I, pp. 291-2; trans. Peers, pp. 215-16.

92 *Ed. cit.*, vol. II, pp. 201-2; trans. Peers, pp. 364-5 (Peers translates 'artista' as 'student', but I think that the 'artista' was a practitioner of the Lullian Art. Lull used this word of those who understood how to use the Art, see below, p. 56).

93 *Ed. cit.*, vol. II, p. 212; trans. Peers, p. 372.

Cf. also the remark of the Cardinal that 'it was very natural and a thing of utility in preaching to prove by natural reasons the manner wherein virtues and vices are contrary, and how one virtue concords with another virtue and one vice with another vice, and through what nature a man may mortify a vice with a virtue, or with two, and how with one virtue a man may revive another virtue; and this manner is in the *Brief Art of Finding Truth*' (*ed. cit.*, vol. II, p. 241; trans. Peers, p. 394. I have slightly revised Peers's translation to bring it nearer to the 'concords and contrasts' of the original.)

94 Its primary meaning is, of course, that of the Cross, the *Lignum Vitae*. In Lull's 'naturalistic' approach to theological and moral demonstration, this would not conflict with its meaning as a fundamental exemplum from the workings of nature.

I make no attempt in the present article to relate Lull's tree symbols to the history of this symbol.

95 The Catalan text of this work, together with one of the old French versions of it, is published in the *Obres*, Palma, vol. I, 1906.

This work had a very early English translator and was one of the first books to be printed in England. William Caxton translated it and published it himself between 1483 and 1485. His translation has been reprinted by the Early English Text Society. See William Caxton, *The Book of the Ordre of Chyualry*, ed. A. T. R. Byles, London, E.E.T.S., 1926.

96 'In one of the partyes of the same wode was a fayr medowe in which was a tree well laden and charged of fruyte. . . . And under the same tree was a fontayne moche fayre and clere. . . . And in that same place was the knyght acustomed to come euery daye for to preye and adoure God Almyghty . . . whan he sawe the squyer come he lefte his oroyson and satte in the medowe in the shadow of a tree And beganne to rede in a lytyl book that he had in his lappe.' Caxton's trans., *ed. cit.*, pp. 5-7. This is the meeting between the Hermit and the Squire in the Wood which the manuscripts illustrate (Pl. 5a, b).

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As we know from experience, the hermit under the tree with a book means, in Lull's vocabulary, one who knows and will expound the Art.

- 97 Caxton, in his translation, shows that he understands the 'elemental' principles of concord and contrasting as applied to the virtues and vices. 'Curtesy and Chyualry concorden to gyder' (*ed. cit.*, p. 113). 'Then gif thou wilt fynd noblenes of courage, demand it of faith, hoip, charite, iustice, strenth, attemperans, leaute, & of vertues. For in them is noblesse of courage by them is *diffeated* the hert of a noble knyght fro wickednesse fro trecherye and fro the enemyes of chyualrye' (*ed. cit.*, pp. 55-6). The last quotation describes the defeat or 'devictio' of vices by virtues in the heart of the knight. Compare Salzinger on this, quoted below, p. 53.

- 98 *Blanquerna*, *ed. cit.*, vol. II, pp. 151-2; trans. Peers, p. 327. A few pages later we learn that a knight who was also a priest and 'of the Order of Science and Chivalry', vanquished ten knights by force of arms and afterwards 'vanquished all the wise men of that land by his arguments, and proved to them that the Holy Catholic Faith was true' (*ed. cit.*, vol. II, pp. 155-6; trans. Peers, p. 330).

Such was the double power of a crusading knight who was also an 'artista'.

On Lull's relations with the Templars and Hospitallers some indications will be found in Peers, *Ramon Lull*, pp. 233, 333, 339, 340-1, 360-1. Peers does not use the curious remarks in *Blanquerna* quoted above, nor have I found any other work which discusses Lullism among crusading knights.

- 99 *Obres*, vol. I, p. 203 (Catalan version); p. 249 (old French version). Caxton's translation, *ed. cit.*, pp. 1-2.
- 100 Valencia, 1512. I have used this edition and the page references are to it. This important work may have been rather overlooked owing to its not having been included in the Mainz edition. A Spanish translation of it, with introduction, was published at Madrid in 1928.
- 101 Cf. also the Art as a Ladder in one of the Karlsruhe miniatures (Pl. 7b).
- 102 Part VII (*ed. cit.*, fol. 33 ff.).
- 103 Part II (*ed. cit.*, fol. 2<sup>v</sup> ff.).
- 104 Fol. 5<sup>r</sup>.
- 105 Part IV (*ed. cit.*, fol. 20<sup>r</sup>).
- 106 Part VIII (*ed. cit.*, fol. 41<sup>r</sup>).
- 107 Part IX (*ed. cit.*, fol. 45<sup>v</sup>).
- 108 Peers, *Ramon Lull*, pp. 251 ff.
- 109 See above, p. 11.
- 110 Part of the Prologue to the *Arbor scientiae* is translated by Peers in his



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*Ramon Lull*, pp. 269-70, from which the above English versions are taken.

111 Vols XI-XIII, 1917-26.

112 I have used the edition of Lyons, 1635.

113 'Revelatio', pp. 145 ff. (in Mainz ed., vol. I).

The *Arbor scientiae* and the *De ascensu et descensu intellectus* were probably omitted from the Mainz edition because they were already published. Their omission has had, however, the rather unfortunate result of divorcing these key works from the main body of works on the Art in the Mainz edition.

114 This is reproduced in colour in vol. XIII of the Palma edition.

115 Ed. of Lyons, 1635, pp. 241 ff.

116 *Ed. cit.*, pp. 3 ff.

117 *Ed. cit.*, p. 248.

118 *Ed. cit.*, p. 245.

The *Tractatus de astronomia*, which was written in Paris two years later than the *Arbor scientiae*, may well be the attempt at the reform of astrology through the Art which was (apparently unsuccessfully) urged on the Pope and the Cardinals in 1295.

119 'Revelatio', p. 12 (Mainz ed., vol. I).

120 *Ed. cit.*, p. 13.

121 *Ed. cit.*, p. 244.

122 See the *De figura elementali*, Mainz ed., vol. III, pp. 60 ff.

123 J. M. Millás Vallicrosa, *El Libro de la 'Nova Geometria' de Ramon Lull*, critical edition with introduction and notes, published by *Asociación para la historia de la ciencia española*, Barcelona, 1953, Introduction, pp. 35 ff. (Cf. also J. M. Millás Vallicrosa, *Estudios sobre historia de la ciencia española*, Barcelona, 1949, pp. 357-86).

Professor Millás shows in his introduction that Lull's geometry is erroneous from a genuinely mathematical point of view (pp. 16-25), that it does not employ the traditional Euclidean terminology (p. 26), and that it contains strange admixtures of metaphysics and also of astrology (pp. 35 ff.).

Quite early in the text of the *De nova geometria* come hints that the geometry of this work relates to the geometry of 'elemental astrology'; for example in the statement that 'sicut omnia elementa sunt ex simplicibus elementis, ita omnes figure composite, sive sint naturales vel artificiales, descendunt et derivantur de figura circulari, quadrangulari et triangulari' (*ed. cit.*, p. 60). This impression is amply borne out by the later development of the work which certainly relates closely to the *Tractatus de astronomia* and also to Lull's works on astrological medicine.

124 The relationship of the first part of the *De nova geometria* (which is on the investigation 'de quadratura circuli et de eius triangulatura ac

etiam de triangulatura quadranguli') with Lull's other geometrical work, the *De quadratura et triangulatura circuli*, is discussed by Professor Millás in his introduction (pp. 21 ff.) to the *De nova geometria*.

125 See pp. 67–70 above.

126 *Arbor scientiae*, ed. cit., p. 424.

127 *Arbor scientiae*, ed. cit., p. 127.

128 *Ibid.*, pp. 194–5. On 'active' and 'passive', see above, p. 29, and p. 52.

Blanquerna also gives an 'elemental' exposition of the Sacrament, though not on the same lines as here. See *Blanquerna*, trans. Peers, p. 209.

129 *Ibid.*, p. 265.

130 *Ibid.*, pp. 276–7.

131 *Ibid.*, p. 300.

132 *Ibid.*, p. 304. With this may be compared one of the fascinating allegories in the 'Arbor Exemplificalis', in which Pepper and Cucumber argue as to whether Fire or Water is most like to God (*ibid.*, p. 407).

133 *De princ. med.*, p. 40 (in Mainz ed., vol. I).

134 'Revelatio', pp. 151–2.

135 Catalan text in vol. I, 1901, of the first Palma edition; Latin text in vol. II of the Mainz edition.

Salzinger no doubt thought that this work would be perfectly clear to the reader of his edition, who would have studied in Vol. I his 'Revelatio' and the 'metaphors' in the *Liber principiorum medicinae*. Also in his preface to the *Liber de gentili*, Salzinger took a lot of trouble, and referred the reader to the adventures of Felix, or the *Libre de meravelles* (see Mainz ed., vol. II, p. 5).

The *Libre de meravelles* is certainly fundamental for the student of the *Liber de gentili*, who should also consult *Evast and Blanquerna* (notably ed. cit., vol. II, p. 131). Nor must the *Arbor scientiae* be neglected. The allegory of the Nightingale (*Arb. scient.*, ed. cit., p. 397) is said to contain the meaning of the *Liber de gentili*.

136 The engraving in the Mainz edition, from which this plate is taken, is based on the illustration (perhaps planned by Le Myésier) in Paris, B.N. lat. 15450. Cf. also a coloured drawing in a seventeenth-century manuscript collection of Lull's works in the Bibliothèque Mazarine (MS. fr. 3506).

137 In vol. II of the Mainz edition.

138 *Histoire littéraire de la France*, 29, pp. 89–90.

139 *Blanquerna*, ed. cit., I, p. 206; trans. Peers, p. 155.

140 'Et certe, ut tibi nude aperiam quid moliar, non Lulli *Artem brevem*, sed scientiam penitus novam tradere cupio, qua generaliter solvi possint quaestiones omnes, quae in quolibet genere quantitatis, tam

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continuae quam discretæ, possunt proponi.' Descartes to Beeckman, March, 1619. Against the reference to Lull, Beeckman wrote in the margin, '*Ars generalis ad omnes quaestiones solvendas quaesita*.' See Descartes, *Oeuvres*, ed. Adam and Tannery, Paris, 1908, vol. X, pp. 156-7.

Descartes, of course, rejected Lullism, but he probably understood it fully and knew its 'geometrical' secrets. Such understanding would make the analogy with his own system closer.

It has been pointed out that in his preface to the French translation of the *Principia*, Descartes seems to echo the 'tree' metaphors of the *Arbor scientiae* (*Oeuvres*, ed. cit., vol. IX, pp. 14-15; and cf. Carreras y Artau, *op. cit.*, vol. II, pp. 300-1). In the 'Arbor Celestialis' of the *Arbor scientiae*, Lull uses the terms 'continuous' and 'discrete' quantity (see quotation on p. 48 above).

141 Thorndike, *History of Magic and Experimental Science*, vol. II, p. 865. On the same page, however, Thorndike says that the method of Lull's Art 'leads us to infer that it occurred to him by some process of sub-conscious association with the employment of the planisphere in astronomy or the use of a revolving wheel and tables of combinations of letters of the alphabet such as we have noted in the geomancies and modes of divination ascribed to Socrates, Pythagoras, and other philosophers.'

142 *Introductoris artis demonstrativæ*, Mainz ed., vol. III, p. 1.

143 'Logicus tractat de secundariis intentionibus . . . sed generalis artista tractat de primis. . . . Et in isto passu cognoscit intellectus, quod logica est scientia instabilis sive labilis; hec autem ars generalis permanens est stabilis. Item logicus facit conclusionem cum duabus praemissis, generalis autem artista huius artis cum mixtione principiorum & regularum. Adhuc logicus non potest invenire veram legem cum logica: generalis autem artista cum ista arte invenit. . . . Et plus potest addiscere artista de hac arte uno mense quam logicus de logica uno anno.' ('De logica', cap. CI of *Ars magna generalis ultima*, in Lull's *Opera*, ed. Zetzner, Strasbourg, 1617, pp. 537-8).

144 *Liber de prima et secunda intentione*, Mainz ed., vol. VI, p. 19.

'First and second intentions' are, of course, scholastic terms. A recent valuable article, which unfortunately I did not see until this article was in proof, discusses Lull's special use of the terms (E. W. Platzeck, 'La combinatoria luliana', *Rev. de Filosofía*, XII, 1953, XIII, 1954, first published in German in *Franziskanische Studien*, XXIV, 1952). The author points out that, for Lull, first and second intentions correspond to substance and relation; in the 'creatures' Lull distinguishes between substantial and accidental principles, the former being those belonging to the 'first intention' towards God.



Applying this to the elemental theory, one sees how the elements which concentrate on their proper qualities (or those which they have *per se* and not *per accidens*) become an *exemplum* in nature of 'first intentions'. And the 'devictio' process, by which the proper defeats the appropriated quality, is an analogy of the process by which, in an Art based on first intentions, virtue devicts vice, truth devicts error.

The elemental pattern would thus correspond, for Lull, to the pattern of a logic based on first intentions.

- 145 Lull, *Opera*, ed. Zetzner, Strasbourg, 1617, p. 150.
- 146 See Prantl, *Geschichte der Logik*, ed. cit., vol. II, p. 45.
- 147 L. S. Stebbing, *A Modern Introduction to Logic*, London, 5th edn, 1946, p. 59.
- 148 Lull, *Opera*, ed. Zetzner, Strasbourg, 1617, p. 663.
- 149 See p. 70 above, Appendix I.
- 150 *De nova logica*, Valencia, 1512 (published in a small volume containing three works, one of which is the first edition of the *De ascensu et descensu intellectus*). This *De nova logica* is not the same work as the logic published in the Zetzner edition and which contains the diagram of the 'Square of Opposition'.
- 151 See Appendix II, p. 73.
- 152 *Blanquerna*, ed. cit., vol. I, p. 291; trans. Peers, p. 215.
- 153 In vol. III of the Mainz edition.
- 154 See J. Ribera, 'Orígenes de la filosofía de Raimundo Lulio', and M. Asín Palacios, 'Mohidin', both in *Homenaje a Menéndez Pelayo*, Madrid, 1899; M. Asín Palacios, *Abenmasarra y su escuela*, Madrid, 1914, and *El Islam Christianizado*, Madrid, 1931.
- Arabic influence on Lull is denied by J.-H. Probst, *Caractère et origine des idées du Bienheureux Raymond Lulle*, Toulouse, 1912, and *La mystique de Ramon Lull*, Münster, 1914.
- 155 The text has been published, with a valuable introduction, by Jordi Rubió Balaguer, *La lògica del Gazzali posada en rims per En Ramon Lull*, in *Institut d'Estudis Catalans, Anuari*, Barcelona, 1913-14, pp. 311-54.
- 156 *Historia de la filosofía española*, vol. I, pp. 348-56.
- 157 *La lògica del Gazzali*, p. 352; quoted by Carreras y Artau, *op. cit.*, pp. 355-6.
- 158 *Liber de gentili et de tribus sapientibus*, in the Mainz ed., vol. II, p. 89.
- 159 *Lib. princ. med.*, p. 22 (in Mainz ed., vol. I).

Perhaps one might find parallels in the medical works of Lull's Catalan contemporary, Arnold of Villanova, who, according to Thorndike (*op. cit.*, vol. II, p. 847) states in one of his medical works that 'the proverbs of Solomon show that what learned men have revealed in the world of nature can be adapted by convenient metaphor to moral instruction'.

# NOTES TO PAGES 61-4

- 160 Thorndike quotes from Al-Farābī a plea for a general science of nature which should be a 'science of action and passion' (*op. cit.*, vol. II, p. 81). Lull's theory stresses that two elements are active and two passive, so that possibly the kind of science of which Al-Farābī is thinking might be something like Lull's elemental astrology.
- 161 For a full treatment of Lull and the Augustinian tradition, see the article by E. Longpré on Lull in the *Dictionnaire de théologie catholique*; and E. Platzeck's article, cited above, note 144.
- 162 Carreras y Artau, *op. cit.*, I, p. 534.
- 163 St Bonaventura, *Opera omnia*, Quaracchi, 1882-1902, vol. V, pp. 295-313.
- 164 *Ed. cit.*, vol. V, pp. 319-25.
- 165 E. Gilson, *La philosophie de Saint Bonaventure*, Paris, 1924, pp. 116-7.
- 166 *Comment. in libros Sententiarum, Opera, ed. cit.*, vol. II, p. 360.
- 167 *Ibid.*, *loc. cit.*
- 168 (Note 5) Plures codd. *qualitates habent proprias* pro *qualitates habent primas*, scil. caliditatem, frigiditatem, humiditatem, et siccitatem. *Ibid.*, *loc. cit.*
- 169 There is nothing about 'devictio' in this passage in St Bonaventura.
- 170 *Breviloquium*, part II, caps III and IV (*ed. cit.*, vol. V, pp. 220 ff.).

Cap. III opens as follows: 'De natura corporea quantum ad esse haec tenenda sunt, quod corporalis mundi machina tota consistit in natura caelesti et elementari . . . cum natura corporalis ad perfectionem sui et expressionem sapientiae multiformis primi principii requirat multiformitatem formarum, sicut apparet in mineralibus, plantis et animalibus; necesse fuit ponere aliqua corpora simplicia, quae multiformiter possent misceri ad introductionem formarum multiformium; et talis est natura subiecta contrarietati et haec est elementaris. Necesse etiam fuit, fieri naturam, per quam haberent haec contraria in mixto conciliari; et talis est natura elongata a contrarietate, cuiusmodi est natura lucis et corporis supercaelestis.

'Et quoniam mixtio fieri non potest nisi per contraria agentia et patientia, ideo necesse fuit, duplicem contrarietatem fieri in elementis, scilicet quantum ad qualitates activas, quae sunt calidum et frigidum, et quantum ad passivas, quae sunt humidum et siccum. Et quia quodlibet elementum agit et patitur, ideo habet duas qualitates, unam activam et alteram passivam, ita tamen, quod unam principalem et propriam: ac per hoc necesse est, tantum quatuor esse elementa secundum quatuor qualitates praedictas, quadrupliciter combinatas.'

- 171 *Breviloquium*, part II, cap. V (*ed. cit.*, V, pp. 222 ff.).
- 172 *Opera, ed. cit.*, vol. VI, pp. 107-233.
- 173 *Ibid.*, vol. V, pp. 327-454.

## NOTES TO PAGES 65–78

- 174 Gilson, *op. cit.*, p. 97.
- 175 Quoted by Peers, *Ramon Lull*, p. 402.
- 176 Quoted from Gilson, *op. cit.*, pp. 368–9. Gilson is giving a free rendering of material to be found in the *In hexaëmeron* (*Opera*, ed. cit., vol. V, p. 357) and in *Sermo II de reb. theolog.* (*Opera*, ed. cit., vol. V, p. 540).
- 177 *Op. cit.*, p. 219.
- 178 *Ibid.*, p. 221.
- 179 A full and valuable account of the influence of Lullism is given by Carreras y Artau, *Historia de la filosofía española*, vol. II.
- 180 In his *Apologia* (*Opera omnia*, ed. Basle, 1572, p. 180).
- 181 The holder of the chair was Bernardus de Lavinhera whose teaching probably did much to foster the very strong revival of Lullism in sixteenth-century France, which spread to England. He was a prolific writer on Lullism. His *Practica compendiosa artis Raymundi Lull*, 1523, treats of Lullism in relation to natural philosophy, mathematics, music, astrology, mechanical arts (including navigation on which Lull was held to be an authority), medicine, metaphysics, moral philosophy, and theology.
- 182 Rubió, *article cited*, p. 77, points out that there is a copy of Paris, B.N. lat. 15450 at Munich (Munich, Clm. 10561–65). This copy may possibly have been taken to Germany at the time of the preparation of the Mainz edition.

## 2 RAMON LULL AND JOHN SCOTUS ERIGENA

- 1 'The Art of Ramon Lull, An Approach to it through Lull's Theory of the Elements', pp. 9–77.
- 2 Pp. 13 ff.
- 3 Pp. 29, 38, 39, 49 and Pls 3b, 3c, and 14c and d. In the Spanish version of this article ('La teoria luliana de los elementos', *Estudios Lulianos*, III (3), 1959 and following numbers), I have made a further study of the geometry of the elemental figures, expanding the hint given about this on p. 49 above.
- 4 The *Ars compendiosa*, printed in vol. I of the Mainz edition of Lull's works (Lull, *Opera omnia*, Mainz, 1721–42). The figures for it are reproduced in T. and J. Carreras y Artau, *Historia de la filosofía española*, Madrid, 1939, vol. I, following p. 368. A version in Catalan (*Art demostrativa*) is printed in R. Lull, *Obres*, ed. S. Galmés, vol. XVI, Palma, 1932.

A valuable study of the changes in the numbers of the *Dignitates* in Lull's Arts has been made by R. Pring-Mill, 'El número primitivo de



## NOTES TO PAGES 78-84

- las dignidades en el Arte general', *Estudios Lulianos*, I (3), 1957, pp. 309-34; II (2), 1958, pp. 129-56.
- 5 See above, pp. 41 ff.
- 6 P. 23.
- 7 Pp. 55-7.
- 8 Pp. 57-9.
- 9 Particularly M. Asín Palacios, *Abenmasarra y su escuela*, Madrid, 1914, and *El Islam Cristianizado*, Madrid, 1931.
- 10 This point of view has been put forward again recently by J. Millás Vallicrosa, 'Algunas relaciones entre la doctrina luliana y la Cabala', *Sefarad*, XVIII (2), Madrid-Barcelona, 1958, pp. 241-53.
- 11 The importance of this approach to the sources was very well stated by J.-H. Probst, *Caractère et origine des idées du Bienheureux Raymond Lulle*, Toulouse, 1912; E. Longpré took a similar line in his article on Lull in the *Dictionnaire de théologie catholique*; more recently, E. W. Platzeck has strongly emphasized the Augustinian and Christian Neoplatonic character of Lull's thought in his important articles, 'La combinatoria luliana', *Revista de Filosofía*, XII, 1954, p. 585-5, and 'La figura "A" del Ars luliano y la esfera inteligible de Plotino', *Miscellanea luliana*, Schola Lullistica, Majorca, 1953-4, pp. 28-33.
- 12 See Platzeck, 'La combinatoria luliana', pp. 584-5.
- 13 Probst, *op. cit.*, pp. 269-72.
- 14 Platzeck, 'La figura "A" del Ars luliano', pp. 30, 32.
- 15 Henry Bett, *Johannes Scotus Erigena*, Cambridge, 1925, p. 1.
- 16 On these problems, see M. Cappuyns, *Jean Scot Erigène*, Louvain-Paris, 1933.
- 17 The *De divisione naturae* is printed in Migne, *Patrologia Latina*, 122, 439-1022.
- 18 For Scotus's sources see the article 'Erigène' in the *Dictionnaire de théologie catholique*; Bett, *op. cit.*, pp. 150-70, and, particularly for his use of Gregory of Nyssa and Maximus the Confessor, the learned and fascinating article by Mlle M.-Th. d'Alverny on his twelfth-century disciple, Honorius Augustodunensis (M.-Th. d'Alverny, 'Le cosmos symbolique du XIIe siècle', *Archives d'histoire doctrinale et littéraire du Moyen Age*, Année 1953, pp. 31-81).
- 19 This is Bett's impression, *op. cit.*, pp. 157-8.
- 20 There is a good summary of the Scotist scheme in Bett, *op. cit.*, pp. 19-87.
- 21 Quoted by Bett, *op. cit.*, p. 113.
- 22 Pseudo-Dionysius, *De divinis nominibus*, V. Scotus' Latin translation of the work is printed in *P.L.*, 122, where the passage in question occurs in col. 1147. On the source of Scotus' primordial causes in the *Divine Names* see Bett, *op. cit.*, 42; 110, 169. Scotus himself states that Dionysius is his source.

23 Maximus, *Ambigua*, trans. Scotus, *P.L.*, 122, 1199 ff. Cf. d'Alverny, article cited, p. 44.

24 Amongst the lists of the causes given in the *De div. nat.* are the following:

'non posse . . . proprie de Deo praedicari, nisi prius de primordialibus causis ab una omnium causa praeconditis, essentiam dico, bonitatem, virtutem, veritatem, sapientiam ceterasque hujusmodi' (*P.L.*, 122, 463).

'Sunt igitur primordiales causae, quas rerum omnium principia divini sapientes appellant, per seipsam bonitas, per seipsam essentia, per seipsam vita, per seipsam sapientia, per seipsam veritas, per seipsam intellectus, per seipsam ratio, per seipsam virtus, per seipsam justitia, per seipsam salus, per seipsam magnitudo, per seipsam omnipotentia, per seipsam aeternitas, per seipsam pax, et omnes virtutes et rationes, quas semel et simul Pater fecit in Filio, et secundum quas ordo omnium rerum a summo usque deorsum textitur, hoc est, ab intellectuali creatura, quae Deo post Deum proxima est, usque ad extremum rerum omnium ordinem, quo corpora continentur' (*P.L.*, 122, 616).

' . . . divina bonitas, et essentia, et vita, et sapientia, et omnia' (*P.L.*, 122, 632).

'Dum enim ipsam esse rerum omnium principium et causam intueor, occurrit mihi vera ratio, quae fiducialiter suggerit, divinam essentiam, vel substantiam, bonitatem, virtutem, sapientiam, ceteraque, quae de Deo praedicantur.' (*P.L.*, 122, 1019).

The most important of the lists occurs *ibid.*, 622-3, and is quoted in full in the Appendix to this article; see above, pp. 121-5.

25 *P.L.*, 122, 622-4. See above, pp. 103-7, and Appendix, pp. 121-5.

26 See the list of the Dignitates Dei as they are found in the main sixteen and nine forms of the Art, quoted above, p. 78. Of the Scotist causes not found in these lists, Essentia, Unitas, Perfectio appear with 'A' in the *Ars brevis* alphabet (see Pl. 14e) and in other forms of the Art; see Pring-Mill, 'El número primitivo de las Dignidades', *Estudios Lulianos*, I (3), pp. 312-13, note. Amor also occurs in some Lullian lists (see *ibid.*, p. 312 note). Other Lullian Dignitates, not actually mentioned by Scotus, such as Largitas, Misericordia, Patientia, Humilitas, are covered by the 'et omnes virtutes' which Scotus uses of the causes; Lull's choice of Humilitas shows that he is thinking of the Son. One of Lull's Dignitates which I have not found in Scotus is Gloria; see above, p. 111, note 149.

27 Causae itaque primordiales sunt . . . quas Graeci ideas vocant . . . (*P.L.*, 122, 615).

28 *Ibid.*, 615-6.

## NOTES TO PAGES 85-6

- 29 *Ibid.*, 616.
- 30 *Ibid.*, *loc. cit.*
- 31 On this, see further below, p. 89.
- 32 *P.L.*, 122, 642.
- 33 '. . . principalia exempla, quae Pater in Filio fecit' (*P.L.*, 122, 616). Cf. also, *inter alia*, *ibid.*, 561, 601, 642, 683. The first words of Genesis, 'In the beginning God made the heaven and the earth', mean that God created the primordial causes in the Son before the world was made (*ibid.*, 545, 546). For a lucid exposition of the relation of the primordial causes to the Son, see Bett, *op. cit.*, pp. 39-42. For the influence of Maximus the Confessor on Scotus' formulation of this conception, see d'Alverny, article cited, p. 44.
- 34 *P.L.*, 122, 624; see Appendix above, p. 123.
- 35 'Quaecunque enim bona sunt, participatione per se boni bona sunt; et quaecunque essentialiter et substantialiter subsistunt, participatione ipsius per seipsam essentiae subsistunt; quaecunque vivunt, participatione per seipsam vitae vitam possident. Similiter quaecunque sapiunt et intelligunt et rationabilia sunt, participatione per seipsam sapientiae, et per seipsam intelligentiae, et per seipsam rationis participatione sapiunt, et intelligunt, et ratiocinantur. Eodem modo de ceteris dicendum. Nulla siquidem virtus, sive generalis, sive specialis, in natura rerum invenitur, quae a primordialibus causis ineffabili participatione non procedat' (*P.L.*, 122, 616-7). Cf. also *ibid.*, 628 ff., 632 ff., 666 ff., 681 ff., 683 ff., 903 ff., 952 ff., etc. In one of the passages on the diffusion of Bonitas through all (903), he gives as his source the Dionysian *Celestial Hierarchies*, chapter IV (in Scotus' Latin translation, *P.L.*, 122, 1046). See also the passage (*ibid.*, 622 ff.) quoted in the Appendix to this article (above, pp. 121-5).
- 36 'Ipsa [i.e. the 'principia' or primordial causes] vero unius universorum causae, summae videlicet ac sanctae Trinitatis, participationes sunt, atque ideo per se dicuntur esse, quia nulla creatura inter ipsa et unam omnium causam interposita est' (*P.L.*, 122, 616). God is said to descend first into the primordial causes which are a medium between Him and the creation (*ibid.*, 683). Cf. Bett, *op. cit.*, p. 39.
- 37 'Prima siquidem ipsius progressio in primordiales causas, in quibus fit, veluti informis quaedam materia a Scriptura dicitur; materia quidem, quia initium est essentiae rerum, informis vero, quia informitati divinae sapientiae proxima est' (*P.L.*, 122, 681).
- 38 'De informi materia, quam Graeci *ύλην* vocant, nullus in sacra Scriptura exercitatorum, naturarum conditionem recta ratione considerans, ambigit, quod a conditore omnium et causaliter inter causales, et inter causarum effectus secundum suas proportionales



condita sit' (*P.L.*, 122, 636). On the *hyle* see Plato, *Timaeus*, 69 a 6. Scotus was of course using the Latin translation of Calcidius. For a discussion, see d'Alverny, article cited, pp. 58-9.

- 39 ' . . . primordiales rerum omnium causas in sapientia Patris semper esse aeternas, informem vero materiem, in qua et per quam in effectos suos per generationem proveniunt in genera et species, quibus mundus impletur, aeternam non esse' (*P.L.*, 122, 636).
- 40 'Catholica quoque solent appellari, id est, universalia; ex ipsis siquidem propria singulorum corpora fiunt. Iterum elementa non de nihilo facta, sed ex primordialibus causis procedere fateor' (*P.L.*, 122, 664). ' . . . in universalibus elementis quae Graeci catholica στοιχεῖα vocant' (*P.L.*, 122, 706).
- 41 ' . . . convenerat quidem inter nos . . . quam quattuor simplicium elementorum universitatem, quae dum per se purissima sint, et incomprehensibilia omni corporeo sensu, et ubique universaliter diffusa, invisibili suo meatu, proportionabilique coitu in se invicem, omnia corpora sensibilia perficiunt, sive caelestia sint, sive aerea, sive aquatica, sive terrena' (*P.L.*, 122, 711-12).
- 42 'Causae quidem enim in elementa, elementa in corpora descendunt' (*P.L.*, 122, 696).
- 43 'Inter simplicitatem autem causarum et elementorum talis est differentia, quod illa causarum quidem absque locorum et temporum natura intelligitur, ista vero locis temporibusque carere non potest' (*ibid.*, *loc. cit.*).
- 44 'Proinde harum aquarum in medio dixit Deus fieri firmamentum, hoc est simplicium elementorum naturam, quae quantum visibilia corpora superat, tantum ab invisibilibus eorum rationibus superatur' (*P.L.*, 122, 696).
- 45 'Proinde paucis his de quattuor qualitatibus quattuor universalium elementorum praelibatis, quae, quoniam medietatem quandam inter primordiales causas et composita corpora obtinent, firmamenti nomen acceperunt' (*P.L.*, 122, 713). That the creation is formed of the elemental qualities, not of the pure, universal, catholic elements, is again emphasized in the following: 'Ubi notandum, quod non ex coitu substantialium elementorum, dum sint incorruptibilia et insolubilia, sed ex eorum qualitatibus sibi invicem proportionaliter copulatis corpora sensibilia conficiuntur. Qualitates autem quattuor elementorum notissimae sunt quattuor: caliditas, humiditas, frigiditas, siccitas, ex quibus omnia corpora materialia adjectis formis componi, physica perhibet theoria' (*ibid.*, 712).

The distinction which Scotus draws between (1) primordial causes, (2) catholic and universal elements, (3) elemental qualities, is thus resumed by Duhem:

'Les corps (? *sic*) rationnels et éternels, causes primordiales des

éléments universels, sont assurément de nature spirituelle. Au contraire les corps mixtes, soumis à la génération et à la corruption, sont d'une nature exclusivement corporelle. Entre les uns et les autres se trouvent les éléments catholiques. Ceux-là ne sont pas entièrement de nature corporelle, car pour former les corps, il faut qu'ils soient corrompus par leur mutuelle union; ils ne sont pas non plus absolument exempts de cette nature, puisque tous les corps proviennent d'eux et se résolvent en eux. On ne peut pas davantage dire qu'ils soient pleinement spirituels, puisqu'ils ne sont pas tout à fait exempts de nature corporelle; cependant, ils sont esprits en quelque mesure, puisqu'ils subsistent par des causes primordiales qui sont purement spirituelles.

'Au travers de cette hiérarchie formée par les causes primordiales, les éléments universels et les corps mixtes, se produit un continuuel mouvement de synthèse, d'analyse, de transmutation. Les causes descendent pour se transformer en éléments, les éléments en corps; à leur tour, les corps dissociés rejaillissent, par l'intermédiaire des éléments, jusqu'aux causes primordiales. . . . ' P. Duhem, *Le Système de Monde*, Paris 1915, III, pp. 53-4. His quotations are from *P.L.*, 122, 696.

Duhem (*ibid.* pp. 55-6) thinks that Scotus' physics are influenced by Gregory of Nyssa.

46 *P.L.*, 122, 552 ff., 566, 579, 601, 786.

47 *P.L.*, 122, 606, 706, etc.

48 It has been suggested that the intricate patterns in the Book of Kells might refer to the elements; see Françoise Henry, *Irish Art*, London, 1940, p. 189.

49 Perhaps particularly in the passage where he speaks of the 'primordial and proper' qualities of the elements; *P.L.* 122, 606.

50 'Proinde divina bonitas . . . in omnibus vero et est et dicitur esse, quoniam totius universitatis essentia est, et substantia, et genus, et species, et qualitas, et quantitas, et omnium copula, et situs, et habitus, et locus, et tempus, et actio, et passio, et omne, quodcunque in omni creatura et circa omnem creaturam a qualicunque intellectu potest intelligi' (*P.L.*, 122, 681-2).

51 'Verbum Dei, in quo, et per quod, et ad quod facta sunt omnia, secundum suam divinitatem, in effectus causarum descendisse secundum suam humanitatem' (*P.L.*, 122, 912).

52 'Constat enim inter sapientes, in homine universam creaturam contineri. Intelligit enim et ratiocinatur, ut angelus; sentit et corpus administrat, ut animal; ac per hoc omnis creatura in eo intelligitur' (*P.L.*, 122, 755).

53 *P.L.*, 122, 782. Cf. also 531, etc.

54 *Ibid.*, 782.

- 55 *Ibid.*, 892, quoting Gregory of Nyssa.
- 56 'Principium itaque et finis mundi in Verbo Dei subsistunt' (*P.L.*, 122, 893). Man is called the *officina omnium* because he contains all. 'Hinc etiam medietas solet appellari, extrema siquidem longeque a se distantia, spiritualia scilicet et corporalia, in se comprehendit et in unitatem colligit' (*ibid.*, *loc. cit.*).
- 57 D'Alverny, 'Le cosmos symbolique du XIIe siècle', p. 32.
- 58 The facts and conjectures about this mysterious personage have been brought together by E. M. Sanford in her article 'Honorius, *Presbyter et Scholasticus*', *Speculum*, XXIII, 1948, pp. 397–425. The influence of Anselm of Canterbury on Honorius has now been established by Yves Lefèvre, *L'Elucidarium et les Lucidaires*, Paris, 1954, pp. 194 ff.
- 59 J. A. Endres, *Honorius Augustodunensis*, Kempten-Munich, 1906.
- 60 Paris lat. 6734.
- 61 'Le cosmos symbolique du XIIe siècle'. I am very greatly indebted to this brilliant article, in which the illustrations from Paris, B.N. lat. 6734 which I have used here are reproduced and discussed. Mlle d'Alverny does not mention Lull in it, but is concerned solely with Scotus, his Greek patristic sources, and with Honorius and the adaptation of Scotus' work in the *Clavis physicae*.  
Mlle d'Alverny kindly lent me her photographs from the Paris manuscript for the reproductions in this article.
- 62 D'Alverny, article cited, pp. 53 ff.
- 63 It is unlikely that the manuscript would have left Germany before 1483 (d'Alverny, article cited, p. 36). It is rumoured, however, that Lull may have travelled in Germany (see E. A. Peers, *Ramon Lull*, London, 1929, p. 145).
- 64 *P.L.*, 122, 580–1. Mlle d'Alverny discusses the five-fold scale, and Scotus' use of it, article cited, pp. 50–1.
- 65 On the *Arbor scientiae*, see above, pp. 43 ff. Pls 8–9, and pp. 99–100.
- 66 D'Alverny, article cited p. 57.
- 67 'Per se ipsam bonitas, per se ipsam essentia, per se ipsam vita, per se ipsam sapientia, per se ipsam veritas, per se ipsam intellectus, per se ipsam ratio, per se ipsam virtus, per se ipsam justitia' (*P.L.*, 122, 616). With the exception of the omission of 'intellectus' in the picture, this list corresponds exactly to the causes as given in Scotus' list, which, however, does not stop at Justitia but goes on to Salus, Magnitudo, Omnipotentia, Aeternitas, Pax, 'et omnes virtutes et rationes quas . . . Pater fecit in Filio.' See the quotation on p. 238, note 35 above.
- 68 D'Alverny, article cited, pp. 58–60.
- 69 In her interpretation of the picture, Mlle d'Alverny does not draw the



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distinction between the 'catholic and universal' elements and the elemental qualities, on which see Duhem as quoted on p. 240, note 45 above.

70 *Timaeus*, 39 e 3-41 a 6; see d'Alverny, article cited, p. 65.

71 *P.L.*, 122, 480.

72 See d'Alverny, article cited, pp. 66-8, and further, above, p. 109.

73 Article cited, p. 65.

74 *P.L.*, 122, 532-3, etc. Cf. Bett, *Johannes Scotus*, pp. 67, 79.

75 It is significant that he regards Arithmetic as a 'natural art', quoting Pythagoras 'qui intellectuales numeros substantias rerum omnium visibilium et invisibilium esse certis rationibus affirmat'. *P.L.*, 122, 651-2.

That eight was a particularly favourite number with Scotus is suggested by one of his poems, in which he speaks of the relation of eight to Sunday and Easter, to resurrection and regeneration, to spring and new life, all of which meanings 'vibrate' in him whenever he thinks of eight. Quoted by R. Krautheimer, 'Iconography of Mediaeval Architecture', *Journal of the Warburg and Courtauld Institutes*, V, 1942, pp. 9-10.

76 Article cited, p. 56. Mlle D'Alverny thinks that the presentation of the causes shows a remarkable comprehension of the Scotist doctrine, but that the artist has been influenced by a familiar iconographic theme of the Middle Ages, that of Wisdom and her Seven Daughters (article cited, pp. 57-8).

77 R. Pring-Mill, 'El número primitivo de las dignidades en el Arte general', *Estudios Lulianos*, I (3), 1957, pp. 309-34; II (2), 1958, pp. 129-56.

78 In volume III, with separate pagination.

79 *Liber chaos*, Mainz ed., p. 1. The close association of the *Liber chaos* with the elemental figures of the *Ars demonstrativa* was understood by Salzinger, the editor of the Mainz edition, who puts it into his third volume with that Art and works based on it. The grouping of the *Liber chaos* with the elemental figures is also found in manuscripts; see above p. 72.

80 See *Art demonstrativa*, in *Obres*, Palma, 16, p. 17; and cf. R. Pring-Mill, 'The Trinitarian World Picture of Ramon Lull', *Romanistisches Jahrbuch*, VII, 1955-6, p. 237.

81 'Essentiam Chaos in quatuor partes divisam esse intelligimus, scilicet in igneïtatem, aëritatem, aqueïtatem, & terreïtatem' *Chaos*, p. 1. The elemental essences are 'confusè in ipso Chaos aggregatas', *ibid.*, p. 2, also p. 3.

82 The essences in Chaos are a 'forma communis, quam nos universalem appellamus'. They are 'simple' essences, created at the same time as Chaos. *Ibid.*, pp. 1, 2.

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- 83 Chaos is spoken of as 'continens in se omnia quinque universalia vel praedicabilia, & decem praedicamenta', *ibid.*, p. 2.
- 84 *Ibid.*, pp. 26 ff.
- 85 *Ibid.*, p. 42.
- 86 M.-P.-E. Littré, 'Raimond Lulle' in the *Histoire littéraire de la France*, vol. XXIX, Paris, 1885, pp. 124-7.
- 87 *Compendium seu commentum artis demonstrativae*, pp. 61-2 (in vol. III of the Mainz edition, separately paged).

It is probable that the connection between the Dignitates and chaos was brought out more clearly by Lull when he was orally expounding the Art, for we are told in the contemporary life of him that when he publicly read the *Art demonstrativa* in Montpellier, he also read, in connection with it, a lecture on the 'caos elemental', in which the 'predicaments universals' are contained, 'segons la teologal e catòlica veritat'. See the *Vida coetània*, in R. Lull, *Obres essencials*, Barcelona, 1957, I, p. 40.
- 88 For Scotus on the lightness and heaviness of the elements, see Migne, 122, 714, etc. Duhem suggests that he is following Gregory of Nyssa, rather than the *Timaeus* (*Système du monde*, vol. III, pp. 56-7).
- 89 R. Pring-Mill has studied these changes in number in his article cited above, p. 236, note 4.
- 90 The Catalan version is the most accessible since it is published in the Palma edition of the *Obres*, vols XI to XIII (and now in *Obres essencials*, Barcelona, 1957, I, pp. 555-1040). I discussed the *Arbor scientiae* in my 'Art of Ramon Lull', see above, pp. 43-50.
- 91 *Arbre de sciencia*, *Obres*, vol. XI, pp. 9-23.
- 92 *Ibid.*, p. 9.
- 93 *Ibid.*, p. 23.
- 94 *Ibid.*, p. 25.
- 95 *Ibid.*, *loc. cit.* Latin version: 'Truncus generalis est de suis radicibus, quae sunt causae primariae' (*Arbor scientiae*, Lyons, 1635, p. 12).
- 96 *Arbre de sciencia*, *ed. cit.*, pp. 9, 27 ff.
- 97 *Ibid.*, pp. 10, 31 ff.
- 98 *Ibid.*, pp. 10, 35 ff.
- 99 *Ibid.*, pp. 10, 46 ff.
- 100 *Ibid.*, p. 46.
- 101 See above, p. 81.
- 102 Bett, *Johannes Scotus*, p. 28.
- 103 *P.L.*, 122, 455, 553; cf. Bett, *op. cit.*, p. 52.
- 104 *P.L.*, 122, 568-9, 579, etc.; cf. Bett, *op. cit.*, p. 55.
- 105 *P.L.*, 122, 486-7, 881, etc.; cf. Bett, *op. cit.*, pp. 52-3.
- 106 *P.L.*, 122, 569, etc.; cf. Bett, *op. cit.*, pp. 53-4.
- 107 *Coel. Hier.*, XI, 2; in Scotus' Latin translation, *P.L.*, 122, 1059. Cf.

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- Bett, *op. cit.*, p. 54, where he points out that Scotus reconciles this triad with the Augustinian *esse, velle, scire*.
- 108 'The Trinitarian World Picture of Ramon Lull', p. 251.
- 109 *Ibid.*, p. 241. Pring-Mill is using the *Liber de demostracions* (Obres, XV), and the *Liber de correlativis innatis*, whence he traces correlativism in the Arts.
- 110 Pring-Mill, article cited, pp. 232 ff., where Lull's correlatives, and his use of correlative suffixes, are examined.
- 111 E. W. Platzeck, 'La combinatoria luliana', *Revista de Filosofía*, XII, 1954, pp. 136-8.
- 112 Bett, *op. cit.*, pp. 109-10.
- 113 *Liber chaos*, p. 1.
- 114 'Trinitarian World Picture', pp. 251-2.
- 115 This is not meant as a criticism of Pring-Mill's article. Pring-Mill's analysis of the 'Trinitarian World Picture' in this article is invaluable and brings out the 'creative' side of Lull's Trinitarianism, of which we now know the source.
- 116 The passage is of such primary importance for Lull that I give it in full in an Appendix, see above, pp. 121-5.
- 117 Appendix, p. 121.
- 118 Appendix, p. 123.
- 119 Appendix, pp. 121 f.
- 120 Appendix, pp. 122 f.
- 121 Appendix, p. 123.
- 122 Appendix, p. 124.
- 123 The word 'theory' may be used in a sense similar to that in which Pseudo-Dionysius uses it, namely a meditation illuminated by the divine light which is reflected from the summit down the orders of the hierarchies; see Dionysius Areopagita, *La Hiérarchie céleste*, introduction by R. Roques, Paris, 1958, p. xlvi; and R. Roques, *L'Univers dionysien*, Paris, 1954, pp. 125-8.
- 124 E. W. Platzeck, 'La figura "A" del Ars luliano y la esfera inteligible de Plotino', in E. W. Platzeck, *Miscellanea luliana*, Schola Lullistica, Majorca, 1953-4, pp. 19-33.
- 125 *Ibid.*, pp. 30, 32. Platzeck does not refer to the passage on the circle which we have used, nor is he thinking of any particular passage, but refers the reader to Mahnke's discussion of mathematical mysticism in Scotus (D. Mahnke, *Unendliche Sphäre und Allmittelpunkt*, Halle, 1937, pp. 188 ff.).
- 126 The passage in Plotinus which is perhaps nearest to Scotus on the circle is *Enn.*, VI, 5, 5.
- 127 'The Art of Ramon Lull', pp. 13-30. The revolving figure used in the *Tractatus* is reproduced *ibid.*, p. 14, Fig. 1.
- 128 Pp. 18-20.



- 129 Quoted p. 19. From Paris, B.N. lat. 17827, f. 17<sup>v</sup>.
- 130 Pp. 21 f.
- 131 He claims that it is a new kind; see p. 13.
- 132 Pp. 32, 33, 35, 41 f., 46-9.
- 133 *P.L.*, 122, 697 ff. On Scotus' astronomy see Duhem, *Système du monde*, III, pp. 58-62.
- 134 He may, however, have contemplated a reform of the system; see my article, p. 46, and Pring-Mill, 'El número primitivo de las Dignidades', *Estudios Lulianos*, I (3), p. 329, note.
- 135 See Duhem, *Etudes sur Léonard de Vinci*, 1906-13, II, pp. 259-60. Hamlet was subscribing to earlier medieval Platonic physics when he dared Ophelia to 'Doubt that the stars are fire'. See my article, 'Shakespeare and the Platonic Tradition', *University of Edinburgh Journal*, Autumn, 1942.
- 136 Lull certainly raises the question of the *anima mundi* in the *Tractatus* and appears to accept it. The passage is quoted in G. Pirovanus, *Defensio astronomiae*, Milan, 1507, sig. d iii (second edition with the title *De astronomiae veritate dialogus*, Basle, 1554). By 'astronomy' the author means astrology. The latter part of this work consists almost entirely of long quotations from Lull's *Tractatus de astronomia*, and almost constitutes a printed edition of that otherwise still unpublished work. I owe the reference to Pirovanus to D. P. Walker.
- 137 For a reproduction and discussion of this picture, see Mlle d'Alverny's article, 'Le cosmos symbolique du XIIe siècle', pp. 69-78.
- 138 As I pointed out in my earlier article, p. 29, the discovery of the presence of elemental astrology in the Lullian Arts breaks down the division between 'genuine' and 'pseudo-Lullian' works, even though Lull himself was not a practising alchemist.  
On his astrological medicine, see my article, pp. 25-7, and R. Pring-Mill, 'El número primitivo de las Dignidades', *Estudios Lulianos*, II, 2, 1958, pp. 27 ff.
- 139 This is Bett's estimate of the length of the work, *Johannes Scotus*, p. 19.
- 140 *P.L.*, 122, 691 ff.
- 141 'Nam et Pater lux est, et ignis, et calor: et Filius est lux, ignis, calor; et Spiritus sanctus lux, ignis, calor. Illuminat enim Pater, illuminat Filius, illuminat Spiritus sanctus; ex ipsis enim omnis scientia et sapientia donatur' (*ibid.*, 743). The passage is an expansion of a quotation from Epiphanius (*ibid.*, 742).
- 142 *Ibid.*, 869 ff. All the liberal arts are about 'nature' except grammar and rhetoric, but these are included because the others cannot be treated without them.
- 143 On the geometry see particularly *ibid.*, 493, 602, 774-5, but geometrical formulations of the theme come throughout the work.

- 144 *P.L.*, 122, 979 ff.
- 145 'Fiat secundus modus essendi et non essendi, qui in naturarum creaturarum ordinibus atque differentiis consideratur, qui ab excelsissima et circa Deum proxime constituta intellectuali virtute inchoans, usque ad extremitatem rationalis irrationalisque creaturae descendit. . . . Ubi mirabili intelligentiae modo unusquisque ordo cum ipso deorsum versus novissimo, qui est corporum, et in quo omnis divisio terminatur, potest dici esse et non esse. Inferioris enim affirmatio, superioris est negatio. Itemque inferioris negatio, superioris est affirmatio' (*ibid.*, 443-4).
- 146 The vices move into, or are absorbed by, the virtues contrary to them. Thus Superbia moves into Amor Coelestis; the virtue of Bonitas consumes its contrary, Malitia, into itself. In those who are perfect, the irrational passions move into natural virtues (*ibid.*, 916). Elemental comparisons come both here and elsewhere. The superiority of Fire and Air to Earth and Water is a paradigm of the regeneration of human nature when there will be nothing 'heavy' in it but all converted to spirit (*ibid.*, 947-8).
- 147 See my 'Art of Ramon Lull', pp. 52-4 and Pl. 3, which compares Lull diagrams showing virtues and vices with his elemental figures. The virtues and vices in the *Ars brevis* alphabet (see Pl. 14e) relate to this conception.
- 148 Duhem, *Système du Monde*, vol. V, pp. 38-75; cf. Bett, *Johannes Scotus*, p. 175.
- 149 Millás Vallicrosa points out the similarity of the names of the sephiroth to Lull's Dignitates in his article 'Algunas relaciones entre la doctrina luliana y la Cabala', *Sefarad*, XVIII (2), 1958, pp. 241-53. I have not found Gloria in either the *Divine Names* or in Scotus, but it is used by Lull (see above, p. 237, note 26). Since Gloria is one of the names of the sephiroth, this may possibly indicate some Cabalist infiltration into Lull's Scotism.
- 150 Duhem, *Système du Monde*, vol. V, pp. 84, 114-15, 137, 156-7.
- 151 G. G. Scholem, *Major Trends in Jewish Mysticism*, Jerusalem, 1941, pp. 153, 170.
- 152 E. A. Peers, *Ramon Lull*, London, 1929, pp. xv, 103-9; Pring-Mill, 'Trinitarian World Picture of Ramon Lull', pp. 231-2.
- 153 On the influence of Scotus see the article by F. Vernet, 'Erigène', in the *Dictionnaire de théologie catholique*; Cappuyns, *Jean Scot Erigène*, pp. 233 ff.; Bett, *Johannes Scotus*, pp. 171 ff.
- 154 D'Alverny, 'Le cosmos symbolique du XIIe siècle', pp. 32 ff.
- 155 On Honorius Augustodunensis see Mlle d'Alverny's article; E. M. Sanford, 'Honorius, *Presbyter et Scholasticus*', *Speculum*, XXIII, 1948, pp. 397-425; Y. Lefèvre, *L'Elucidarium et les Lucidaires*, Paris, 1954, pp. 214-22; and now *Clavis physicae*, ed. Lucentini, Rome, 1974.

- 156 Bodleian, Auct. F. 3. 15. See R. Klibansky, *The Continuity of the Platonic Tradition*, Warburg Institute, London, 1939, p. 30.
- 157 There are quotations of the relevant documents in Cappuyns, *Jean Scot*, pp. 247 ff.; see also Bett, *Johannes Scotus*, pp. 176 ff. On the Amalrician heresy, see G. C. Capelle, *Autour du décret de 1210, Amaury de Bène*, Bibliothèque thomiste, XVI, Paris, 1932.
- 158 Cappuyns, *op. cit.*, p. 248. The *De divisione naturae* is not actually mentioned in the decree of 1210, but Cappuyns points out that it had been proscribed by Honorius III at the synod.
- 159 H. Denifle-A. Chatelain, *Chartularium universitatis Parisiensis*, Paris, 1889, I, pp. 106-7; the order is quoted in Cappuyns, *op. cit.*, pp. 247-8. Cf. also on the whole question the article 'Erigène' in the *Dictionnaire de théologie catholique*.
- 160 Cappuyns, *op. cit.*, p. 250.
- 161 'Theologus . . . nostri temporis Johannes Scotus . . . de decem categoriis in Deum . . .', *P.L.*, 176, 765; the phrase is repeated by Richard of St Victor, *P.L.*, 177, 202. Cf. Cappuyns, *Jean Scot*, pp. 71, 184.
- 162 Immediately after quoting the Order of Pope Honorius III for the burning of all copies of the 'Perifisis', Albéric des Trois-Fontaines continues as follows: 'De libello supra dicto testatur Magister Hugo de Sancto Victore in libro Didascalicon, quod Iohannes Scotus scripsit theologiam de decem cathategoriis in Deum. De quo Iohanne habetur in historia nova Anglorum, quod martyr estimatus est; lege supra in anno 878; non est igitur mirum, si libellus hic ante 300 circiter annos editus et magnum concilium nuper celebratum evasit et hoc anno (1225) dampnationem incurrit propter novos Albigenses et falsos theologos, qui verba bene forsitan suo tempore prolata et antiquis simpliciter intellecta, malè intelligendo pervertebant et ex eis suam haeresim confirmabant.' *Monumenta Germaniae Historica*, XXIII, 915. A further evidence of the connection of Scotus' work with these heretics is the fact that a synod at Sens condemned the book because the Cathars used it; see Hefele-Leclercq, *Histoire des Conciles d'après les documents originaux*, Paris, 1913, V, 2, p. 1443. Cf. F. A. Staudenmaier, *Johannes Scotus Erigena*, Frankfurt, 1834, p. 205; Cappuyns, *Jean Scot*, p. 250; M. Dal Pra, *Scoto Eriugena*, Milan, 1951, p. 243.
- 163 'Accidit autem hoc viris parvi intellectus, ut in errores incidant, quando altiora sine docta ignorantia perquirunt. . . . Unde recte admonent omnes sancti, quod illis debilibus mentis oculis lux intellectualis subtrahatur. Sunt autem illis nequaquam libri sancti Dionysii . . . clavis Philosophiae Theodori, Ioannis Scotigenae Perifiseos . . . & consimiles libri ostendendi.' Nicolas of Cusa, *Opera*, Basle, 1565, p. 73; cf. Cappuyns, *Jean Scot*, p. 251.



## NOTES TO PAGES 115-35

- 164 Steven Runciman, *The Mediaeval Manichee*, Cambridge, 1947, p. 145.
- 165 'The Art of Ramon Lull', pp. 38-9.
- 166 Peers, *Ramon Lull*, p. 115.
- 167 Runciman, *op. cit.*, pp. 131, 132, 140, 159-61.
- 168 *Ibid.*, p. 133.
- 169 Bett, *Johannes Scotus*, p. 191.
- 170 Nicolas of Cusa, *De docta ignorantia*, ed. E. Hoffmann and R. Klibansky, Leipzig, 1932, p. 173. On the influence of Erigena and Eckhart on Cusanus, see Henry Bett, *Nicolas of Cusa*, London, 1932.
- 171 D'Alverny, 'Le cosmos symbolique du XIIe siècle', p. 37, note 1. (Cues, 202; see J. Marx, *Verzeichnis der Handschriften-Sammlung des Hospitals zu Cues*, Trier, 1905, p. 188.)
- 172 *Ibid.*
- 173 See above, p. 247, note 163.
- 174 Article cited, *loc. cit.*
- 175 See M. Honecker, 'Lullus-Handschriften aus dem Besitz des Kardinals Nikolaus von Cues', in *Gesammelte Aufsätze zur Kulturgeschichte Spaniens*, ed. M. Honecker, G. Schreiber, H. Finke, VI, Münster, 1937.
- 176 'Omnis theologia circularis et in circulo posita existit, adeo etiam quod vocabula attributorum de se invicem verificentur circulariter: ut summa iustitia est summa veritas, et summa veritas est summa iustitia, et ita de omnibus'. *De docta ignorantia*, I, XXI, *ed. cit.*, p. 44.
- 177 'The Art of Ramon Lull', p. 29.
- 178 Sherwood Taylor, *The Alchemists*, London, 1951, opposite p. 118. The alchemical manuscript in which this diagram appears is now in the possession of the Bollingen Foundation, to which I owe a debt of gratitude for kindly arranging to have the diagram photographed, and for giving permission for its reproduction here (Pl. 17b).
- 179 Duhem noted a connection between the physics of Scotus and those of Lull (*Etudes sur Léonard de Vinci*, II, pp. 148, 427). He was using pseudo-Lullian, and not genuine Lullian texts. Nevertheless, since pseudo-Lullism derives from genuine Lullism which derives from Scotus, Duhem's observation holds good. The remark by Cappuyns (*Jean Scot*, p. 250) that Scotus perhaps influenced Lull is based on Duhem.

### 3 GIORDANO BRUNO'S CONFLICT WITH OXFORD

- 1 Giordano Bruno, *Opere italiane*, ed. G. Gentile, 2nd edn, 1925-7, vol. I, pp. 1-131.
- 2 *Ibid.*, pp. 148-73.

# NOTES TO PAGES 135-8

- 3 C. Bartholmess, *Jordano Bruno*, 1846, pp. 116-30.
- 4 V. Spampanato, *Vita di Giordano Bruno*, 1921, pp. 337-8.
- 5 L. Limentani, 'Giordano Bruno a Oxford', *Civiltà Moderna*, July-October 1937.
- 6 The work of 'Hentisber' (William Heytesbury) and of 'Suiseth the Calculator' (Richard Swineshead), both of them fellows of Merton, was known to Leonardo da Vinci and to Galileo. The physics of fourteenth-century Oxford exerted a great influence in France and Italy for at least two centuries. Cf. Pierre Duhem, *Études sur Léonard de Vinci*, vol. III, 1913, pp. 405-583; F. M. Powicke, *The Medieval Books of Merton College*, 1931; Lynn Thorndike, *History of Magic and Experimental Science*, vol. III, pp. 370-85 (chapter on the 'Calculator'.)
- 7 F. R. Johnson, *Astronomical Thought in Renaissance England*, 1937, pp. 80-4.
- 8 *Ibid.*, p. 87.
- 9 For an account of the attacks of the humanists on Parisian and Oxford scholasticism see Duhem, *op. cit.*, vol. III, pp. 163-81. The names of 'Scotus' and of 'Suiseth the Calculator' always seemed to arouse peculiar fury in humanist circles.
- 10 Anthony à Wood, *The History and Antiquities of the University of Oxford*, ed. J. Gutch, vol. II, part I (*Annals*), p. 108.
- 11 *Ibid.*, p. 107.
- 12 *Ibid.* It is not realized that mathematics fell into disfavour in certain circles for a time because of their Popish taint. This prejudice was less strong at Cambridge than at Oxford owing to the influence of Sir John Cheke and Sir Thomas Smith. But that Cheke's attitude was unusual among his Protestant contemporaries is suggested by the fact that Mulcaster in his *Positions* (1581) cites Cheke's example as proof that mathematical studies are harmless. Since so worthy a gentleman as Sir John Cheke, the argument is, did not fear 'the blame of a *mathematicall* head' surely others may indulge in such studies (quoted by Johnson, *op. cit.*, pp. 88-9). Leonard Digges also refers to this prejudice when he protests against 'reprouers of Astronomie, and sciences Mathematicall' and feels that he must defend 'the Mathematicalls' from 'the folish rasshenes and rasshe foolishenes of suche, which of late haue in writing dispraised these goodly artes' (*A Prognostication*, etc., 1555, Old Ashmolean Reprints, 1926, p. xiii). Digges cites Melanchthon as an example of a *Protestant* who did not disdain mathematics, just as Mulcaster cites Cheke.
- 13 *The Correspondence of Sidney and Languet*, ed. W. A. Bradley, 1912, p. 223.
- 14 Wood, *op. cit.*, vol. II (i), p. 226. The original will be found in Strickland Gibson, *Statuta Antiqua Universitatis Oxoniensis*, 1931, p. 437. It is referred to in Sir Charles Mallet's *History of Oxford*, II, p. 127.

## NOTES TO PAGES 138-42

- The same policy was in force at Cambridge where it was decreed in 1535 that the students must study Aristotle and logic by the aid of the humanists, putting aside 'the frivolous questions and obscure glosses' of the schoolmen (J. B. Mullinger, *History of the University of Cambridge*, 1888, p. 87).
- 15 The dialectical method tended to be used on humanist rather than on philosophical or scientific material. As Professor Lynn Thorndike says 'The humanists continued to indulge in debates and disputations, only they argued whether Hannibal or Scipio was the greater man, instead of whether universals were real' (*Science and Thought in the Fifteenth Century*, 1929, p. 13).
  - 16 There were individual exceptions to the predominantly grammarian and unscientific character of Tudor Oxford – for instance the astronomical and geographical lectures read by Savile and Hakluyt in the 1570s (Johnson, *op. cit.*, p. 196). But the general tone was set by the contentious 'Aristotelian party' which despised the mathematical sciences. Far from being medieval in character (the Tudor universities are generally very misleadingly referred to as 'strongholds of medievalism') the Aristotelianism of this party was really actively anti-medieval.
  - 17 *Op. cit.*, vol. II (i), pp. 212-15.
  - 18 *Ibid.*, pp. 219-21.
  - 19 M. W. Wallace, *Life of Sir Philip Sidney*, 1915, pp. 104-5. Bruno refers to this practice in *De la causa* (*Opere italiane*, ed. cit., vol. I, pp. 164-5).
  - 20 *Opere italiane*, ed. cit., vol. I, pp. 15-16.
  - 21 *Eziandio* (*ibid.*, p. 17). I translate by the archaic 'eke' because Prudentio, the Pedant (true to that character of a grammarian quibbler which he sustains throughout and which makes him the foil to Teofilo, the Philosopher) immediately complains of the use of 'eziandio': 'Avoid that word "eke" for it is an obsolete and antiquated expression.'
  - 22 *Ibid.*, p. 101.
  - 23 *Ibid.*, p. 107.
  - 24 '. . . io non trovo più romani e più attici di lingua che in questo loco. . . '.
  - 25 *Ibid.*, pp. 162-3.
  - 26 That is 'it does not smell of Cicero'. Arpinum was Cicero's birthplace. The Pedant of the *Cena* calls Cicero 'our Arpinate' (*Opere italiane*, ed. cit., vol. I, p. 19).
  - 27 *Opere italiane*, ed. cit., I, p. 167.
  - 28 For other passages against grammarians in Bruno's Italian and Latin works see the references given by Spampanato, *op. cit.*, pp. 74-94.
  - 29 The study of the history of science in Tudor times (which has only recently been investigated in any detail) has brought out the fact that Tudor science grew directly out of medieval science. The two most



important works on this subject which have so far appeared are E. G. R. Taylor's *Tudor Geography, 1485-1583*, 1930, which throws much new light on Dee, and F. R. Johnson's *Astronomical Thought in Renaissance England*, 1937, to which reference has already been made.

- 30 *Op. cit.*, p. 138.
- 31 *Ibid.*, p. 80.
- 32 *Ibid.*, p. 157.
- 33 *Ibid.*, p. 139.
- 34 *Ibid.*, pp. 137-8.
- 35 Quoted from an unpublished life of Sidney in the Huntington Library by Johnson, *op. cit.*, p. 137, note 39.
- 36 *Private Diary of Dr. John Dee*, ed. J. O. Halliwell, 1842, p. 20.
- 37 F. R. Johnson and S. V. Larkey, 'Thomas Digges, the Copernican System, and the idea of the Infinity of the Universe in 1576', *Huntington Library Bulletin*, no. 5, April 1934. This contains a full reprint and the work is further discussed in Johnson's *Astronomical Thought*, pp. 161-210.
- 38 Recorde and Dee were pioneers in spreading a knowledge of the theory in England, where from 1556 onwards it attracted much attention (Johnson, *op. cit.*, pp. 120-210). The statement which used to be made in histories of science that Bruno was the first to maintain the Copernican theory in England shows how little the history of Tudor science had been explored. Such an impression doubtless arose from a mistaken application of Bruno's account of his struggles with the new ignorance at Oxford.
- 39 Johnson and Larkey, p. 80
- 40 *Opere italiane*, vol. I, pp. 8-9. Too little notice has been taken of this valuable hint. Once it is realized that Bruno has the mind of an allegorical painter the mistake will no longer be made of reading into his support of the Copernican theory 'rationalist' implications which he never intended.
- 41 *Opere italiane*, vol. I, p. 100. The herb hellebore, supposed to cure madness, grew at Anticyra; and those who 'voyaged thither' were in need of it, that is to say, mad. 'He is mad,' says Torquato, elegantly presenting his 'childish invective' in the form of one of Erasmus' adages (*Chiliade I, Centuria VIII*, no. 52, in the 1579 Paris edition of the *Adagia*).
- 42 On the contrary, he urges the mathematicians to throw away their mathematics for some deeper and more intuitive vision. There is no space to make this point here with full references but it is of the utmost importance for the understanding of Bruno's mind to realize that, *as a mystic*, he discourages mathematical literalism as much as grammarian literalism. There is, indeed, an odd mistake in his exposition of the Copernican theory. He maintains (against Torquato,

## NOTES TO PAGES 146-50

who is right) that the point at the centre of the epicycle on the third circle in Copernicus' diagram does not represent the earth, but is merely the mark made by the foot of the compass (*Opere italiane*, vol. I, pp. 106-7). He seems to imagine that earth and moon chase one another around an imaginary circle. The error appears in his diagram as well as in his text. Whether this is an intentional alteration of the theory to suit his mystical and symbolical meanings or whether it is merely a mistake, I do not know. But it is certain that the legend which sees in Bruno a 'martyr for modern science' has misunderstood his real attitude to the Copernican theory in a most curious manner.

43 *Opere italiane*, I, p. 31.

44 Roger Bacon, *Opus majus*, translated R. B. Burke, vol. I, pp. 15-16.

45 I am greatly indebted to Dr E. Wind for pointing out to me the many striking resemblances between Pico's attitude and that of Bruno.

46 '. . . non in scholis grammaticorum & paedagogiis. . . .' This objection to 'grammar' (which should be the food of boys but not of men) on the grounds of its 'childishness' is common with Bruno.

47 '. . . sed in pectore Mercurium. . . .'

48 Giovanni Pico della Mirandola, *Opera omnia*, Basle, 1494, I, p. 352. An Italian translation of the letter is given in G. Semprini, *La Filosofia di Pico della Mirandola*, 1936, pp. 201-17. The above English translation is taken from a quotation in J. A. Symonds's *Renaissance in Italy*, 1897, vol. II, pp. 241-2.

49 *Op. cit.*, p. 295.

50 *Opera, ed. cit.*, I, pp. 354-5; Semprini, *op. cit.*, pp. 208-9.

51 *Opere italiane*, vol. I, pp. 16-17.

52 These derivations are pointed out by Signor Gentile in his note to the passage.

Bruno underlines the symbolism of these names in his preface where he says 'in the first dialogue you are introduced to these two creatures (Torquato and Nundinio) and the reason for their names is given, if you can understand it' (*op. cit.*, vol. I, p. 8).

53 *Ibid.*, vol. I, p. 97. In the first dialogue of his *Second Fruits*, 1591, which is deliberately intended to recall the *Cena*, John Florio introduces a 'Torquato' who is very fussy over dress and a 'Nolano' who wears the same suit every day.

54 Shakespeare uses the same imagery in *Love's Labour's Lost* where Berowne forswears elaborate language in favour of a simpler style.

Taffeta phrases, silken terms precise,  
Three-piled hyperboles, spruce affectation,  
Figures pedantical. . . .

are abandoned for 'russet yeas and honest kersey noes'. (V. 2, ll. 406-13).

55 Cf. Aldous Huxley, *Ends and Means*, 1937, pp. 2-6.

#### 4 THE RELIGIOUS POLICY OF GIORDANO BRUNO

- 1 G. Bruno, *Opere italiane*, ed. Giovanni Gentile, 2nd edn, 1925-7, vol. I, pp. 1-131.
- 2 See above pp. 134-50.
- 3 This diagram appeared in Thomas Digges's *A Perfit Description of the Caelestiall Orbes according to the most aunciente doctrine of the Pythagoreans, latelye reuiued by Copernicus and by Geometricall Demonstrations approued*, 1st edn 1576, reprinted by F. R. Johnson and S. V. Larkey in *Huntington Library Bulletin*, 5, April 1934. See F. R. Johnson, *Astronomical Thought in Renaissance England*, 1937, pp. 161-210.
- 4 With his discussion of Copernicanism he associates teaching well-known in the Parisian schools, such as Buridan's theory of 'impetus' (*Op. ital.*, vol. I, pp. 89-90. Pierre Duhem in *Études sur Léonard de Vinci*, 3<sup>e</sup> série, 1913, pp. 255-9, regards this as an important exposition of the Parisian mechanics). Also Albert of Saxony's theory of earth movement (*Op. ital.*, vol. I, pp. 119-25; Duhem, *op. cit.*, pp. 243-6 notes that Bruno shows knowledge of this theory in his *Camoeracensis acrotismus* but does not point out that it seems also to be hinted at in the *Cena de le ceneri*). Such arguments as these would, of course, also have been familiar in Oxford before the break in the long and fruitful medieval collaboration between Oxford and Paris.
- 5 The passage is quoted above, p. 140.
- 6 *Documenti della vita di Giordano Bruno*, ed. V. Spampanato, 1933, p. 40.
- 7 *Op. ital.*, vol. II, p. 64. There is an eighteenth-century translation of the *Spaccio* by W. Morehead (1713) which I have not used in these quotations because it is too inaccurate.
- 8 '. . . xeni. . . .'
- 9 The future is used: *non saranno*.
- 10 *Ibid.*, p. 65.
- 11 '. . . gli lor contrarii predecessori. . . .'
- 12 *Op. ital.*, vol. II, pp. 95-6. The whole of pp. 94-8 is really taken up with this theme, the passage being too long to quote here in full.
- 13 Quoted above, p. 141.
- 14 *Op. ital.*, vol. II, p. 187. With this should be compared a similar passage in the *Eroici furori*, *Op. ital.*, vol. II, p. 432.
- 15 It is noted by T. Whittaker (*Macrobius*, 1932, pp. 8-9) that Bruno is



here influenced by *Asclepius*, an anonymous Hermetic dialogue of about the fourth century, formerly attributed to Apuleius. 'In substance it [the *Asclepius*] sets forth a philosophical religion, Hellenic in spirit, which is called "the religion of the mind." A lamentation over Egypt appears to be symbolical: its ruin is that of the old religion and civilisation.' Whittaker believes that Bruno is interested in *Asclepius* because of its 'pantheistic defence of visible beauty' and he does not realize that the lament over Egypt in the *Spaccio* is used with historical symbolism, as in *Asclepius*. To the fourth-century Hermetist the lament over Egypt stood for the decay of antique civilization; to Bruno it stands for the decay of pre-Reformation civilization.

For the connection of Renaissance Egyptian studies with the religious outlook and with the origin of emblems see Mario Praz, *Studies in Seventeenth Century Imagery*, 1939, p. 19.

- 16 *Op. ital.*, vol. II, p. 314. (The dedication to Sidney is not included in L. Williams's translation, published 1887-9, of the *Eroici furori*.)
- 17 His second reason for not using this title is that he considers his poetry to be less allegorical than that of Solomon, for he uses 'ordinary modes of speech and similitudes more accommodated to common sense, such as witty lovers generally use'. It is outside the main argument of this essay to attempt the exploration of this second reason, which is immensely important for it suggests the process by which the medieval allegory was transformed into the Renaissance image. This combination of disguise and of some subtle and vital change is extremely suggestive as a line for the investigation of Elizabethan love poetry.
- 18 Here are the two sentences in Italian, for comparison: '. . . si usurpano più altamente, che dir si possa, gli titoli de sacri, de santi, de divini oratori, de figli de Dio, de sacerdoti, de regi' (*Op. ital.*, vol. II, p. 314).  
' . . . e solamente per una importuna, vile e stolta fantasia si stimano regi del cielo e figli de li dei' (*Op. ital.*, vol. II, p. 97; the context makes it absolutely clear that this applies to the English Protestants).
- 19 *Op. ital.*, vol. I, p. 107. See above, p. 140.
- 20 See above, p. 154.
- 21 '. . . per una maestà. . . .' All the banquets are connected with their symbolical meaning simply by the preposition 'per'. The whole passage seems meaningless nonsense until its meaning is grasped.
- 22 *Op. ital.*, vol. I, pp. 5-6. The meal typifying the fall of man, is, of course, the apple eaten in the Garden of Eden. The references for these allusions (with the exception of the 'banquet of the leeches' which does not seem to have been traced) are given by Signor Gentile in his notes to the text.

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- 23 ' . . . *l'animo ed effetti*. . . . 'Effetti' seems to be used in the sense of 'property, furniture, household appointments' which is also one of the meanings of the English word 'effects'. Bruno is explaining that his criticism of the supper is not directed against Sir Fulke Greville's establishment but is a part of his criticism of the two doctors.
- 24 *Op. ital.*, vol. I, pp. 7-8.
- 25 *Ibid.*, p. 56.
- 26 *Ibid.*, p. 62.
- 27 *Ibid.* In the first dialogue of Florio's *Second Fruits*, 1591 (which is designed to recall the main features of the *Cena*), 'Nolano' is made to remark 'I aplye my selfe to all, and am like to a millers sack, and not as some, who sometimes make it a matter of conscience to spitt in the Church, and at another time will beray the altar.' I believe that this refers to Bruno's position of conciliation, his desire to find an all-inclusive rite in which Protestants and Catholics can join and the 'troubles in Religion' (see p. 161) be overcome. In this he is unlike 'some', that is unlike some Englishmen, secretly Catholics, to whom it is almost a matter of duty to misbehave in Protestant churches.
- 28 *Ibid.*, pp. 62, 63.
- 29 Bruno told the inquisitors at his trial that the Supper described in this book really took place at the house of the French ambassador (see p. 176). It would seem, then, that the Supper of the *Cena* adumbrates a celebration of Mass at the French embassy at which Englishmen are present.
- 30 *Op. ital.*, vol. I, p. 66. Andreas Osiander was a Lutheran theologian of Nuremberg and the author of the anonymous preface *Ad lectorem de hypothesibus huius operis* which is printed in the first edition (1543) of Copernicus' *De revolutionibus orbium caelestium*. See A. Koyré, *Des Révolutions des orbes célestes*, 1934, pp. 27-31.
- 31 See p. 154.
- 32 *Op. ital.*, vol. I, pp. 104-5.
- 33 The Cancer-Capricorn imagery is used in a French sonnet by Amadis Jamyn to express the joy of France at the return of Henri III from Poland:

Quand le Soleil luisant recule sa clairté  
Loin du Tropique chaud, et tire au Capricorne  
Où son autre carriere absent de nous il borne,  
Le Ciel trouble et couvert nous cache sa beauté:  
Aussi depuis le jour que votre Majesté  
En pays estranger sa lumiere destourne,  
Le Ciel de l'air François qui de vos vertus s'orne,  
Tout triste, tout pleurant, tout obscur a esté.  
Rendez-nous maintenant la ioye et la lumiere

## NOTES TO PAGES 160-5

Par un heureux retour qui dessus tous esclaire,  
Après un aspre Hyver amenant le Printemps.  
(Amadis Jamyn, *Œuvres poétiques*, 1575, p. 6.)

- 34 See pp. 154 f.
- 35 This correlation was illustrated by Raphael in the correspondence between the 'School of Athens' and the 'Disputà'.
- 36 *Documenti*, p. 40.
- 37 *Op. ital.*, vol. I, pp. 153-4.
- 38 See above, pp. 142-4.
- 39 *Op. ital.*, vol. I, pp. 36-7.
- 40 *Ibid.*, p. 35.
- 41 See p. 145.
- 42 *Op. ital.*, vol. I, p. 100.
- 43 *Discours des Misères de ce Temps*. Ronsard, *Œuvres complètes*, ed. G. Cohen, 1938, II, p. 554.
- 44 *Documenti*, p. 103.
- 45 The following lines are typical of League propaganda against Henri:

On dit que la putain d'Angleterre maudite  
Sa jartière a donné à Henry l'hipocrite.  
On dit que ce caphard, ce traistre Polonnois  
Pretend pour successeur auoir le Nauarrois.  
(*Le Testament de Henry de Valoys . . . Avec un  
Coq à l'Asne*, 1589.)

A special embassy was sent to Paris in 1585 to invest Henri with the Order of the Garter; this, of course, is the 'jartière' to which the poet so impolitely refers. The same volume contains a scornful sonnet on Henri's device of the three crowns. See p. 166.

- 46 *Mr. Secretary Walsingham and the Policy of Queen Elizabeth*, 1925, vol. II, pp. 385-6.
- 47 *Calendar of State Papers, Foreign*, vol. XIX, 1584-5, pp. 16-17.
- 48 *Documenti*, p. 84.
- 49 *Ibid.*, p. 85.
- 50 *Ibid.*
- 51 *Ibid.*
- 52 The following is a description of the device as displayed on a triumphal arch in Rheims on the occasion of Henri's coronation: 'l'impresa noua di questo Re, che è tre corone di verdura, due sopra le quali vi sono sei stelle di sotto, e una di sopra, che formano quasi una cometta con una nube sopra, e un motto che dice *Manet ultima coelo* e sotto à questi ui erano dui versi in dichiarazione di detta impresa, che diceuano così,



# NOTES TO PAGES 165-71

*Bina corona tibi dum est, & manet ultima coelo,  
Viua fides geminas proteget, hancque dabit.'*

(A. Pomelli (?), *Particolari della felice, et gloriosa incoronazione di Henrico III Re di Francia, e IIII di Polonia*, Venice, 1575, sig. A2 verso.)

- 53 Chassant et Tausin, *Dictionnaire des Devises*, 1878, I, 191.
- 54 *Paradiso*, XXX, 133-8.
- 55 *Op. ital.*, vol. II, pp. 225-6.
- 56 *Ibid.*, I, pp. 52-4.
- 57 *Ibid.*, II, p. 64.
- 58 See pp. 152 f.
- 59 *Op. ital.*, vol. I, p. 14. For another example of use of similar imagery, see p. 255, note 33.
- 60 He died on 11 June 1584. If internal evidence can be relied upon the *Cena* was written about 22 February of the same year. See Signor Gentile's notes, *Op. ital.*, vol. I, p. 39, note 1; p. 423, note 1.
- 61 See E. Fremy, *Origines de l'Académie française. L'Académie des Derniers Valois*, 1887, p. 122. There is also some account of Henri's learning in E. Lavissee, *Histoire de France*, vol. VI, pt I, pp. 212 ff.
- 62 Reproduced in Fremy, *op. cit.*, p. 114.
- 63 See E. Wind in *Journal of the Warburg Institute*, vol. II, no. 1, p. 78.
- 64 For an example of Jamyn's use of sun imagery in connection with Henri, see p. 255, note 33. Jamyn was interested in Egyptian rites. See Fremy, *op. cit.*, p. 212.
- 65 *Cartel pour le Roy Henry III. Œuvres complètes*, ed. cit., vol. I, p. 1031.
- 66 See p. 168.
- 67 *Œuvres*, ed. cit., vol. II, p. 548.
- 68 *Ibid.*, pp. 577-8.
- 69 *Ibid.*, p. 578.
- 70 *Ibid.*
- 71 *Ibid.*, p. 576.
- 72 *Ibid.*, p. 555.
- 73 *Ibid.*, p. 579.
- 74 *Ibid.*, p. 566.
- 75 *Ibid.*
- 76 *Ibid.*, p. 579.
- 77 *Ibid.*, p. 588.
- 78 *Œuvres*, ed. cit., vol. I, p. 575.
- 79 *Ibid.*, p. 567.
- 80 *Ibid.*, p. 575.
- 81 *Ibid.*, p. 122. These are the opening lines of the *Hymne de l'Eternité*.
- 82 *Ibid.*, vol. I, p. 792.
- 83 For his biography see the article in *Biographie universelle* by J. P. A. Jeandet and the same writer's *Pontus de Tyard*, 1860; also the intro-

duction by Ch. Marty-Laveaux to the edition (1875) of Tyard's *Oeuvres poétiques* in *La Pléiade Française* series.

- 84 The letter from Henri IV making this request is quoted by Jeandet, *op. cit.*, pp. 165-6. See also Père Claude Perry, *Histoire civile et ecclésiastique . . . de la ville et cité de Châlon-sur-Saône*, 1659, pp. 380-1.
- 85 The letter is quoted by Marty-Laveaux, *ed. cit.*, pp. XXII-XXIII. See also Fremy, *op. cit.*, pp. 118-19.
- 86 '. . . quam praecessionem addidi singulis stellarum longitudinibus, descriptis à summo Astronomiae restauratore, Nicolao Copernico: ubique tamen antiquis Ptolemaei Configurationibus, Alphonsinisque & recentiorum stellationibus collatis' (sig. b. 1 verso).

Tyard's interest in Copernicanism is pointed out by Jeandet, *op. cit.*, pp. 165-6, and by Fremy, *op. cit.*, p. 133, note 1. Jean Plattard in an article on 'Le système de Copernic dans la littérature française au XVI<sup>e</sup> siècle' (*Revue du Seizième Siècle*, tome I, 1913, pp. 220-37) gives references for a number of allusions by Tyard to Copernicus but undervalues their significance by accusing Tyard of never having given an exposition of the Copernican system. See, however, *Discours de la nature du monde et de ses parties*, p. 70.

- 87 Sig. a. 2 recto.
- 88 Pp. 25-6.
- 89 *Op. ital.*, vol. I, pp. 22-3.
- 90 Tyard, *op. cit.*, p. 70.
- 91 *Op. ital.*, vol. I, p. 107.
- 92 Tyard's words are: 'Au quatrieme lieu est logee la sphere qui se tourne en un an: en laquelle comme dans un Epicycle, la Terre & toute la region Elementaire, avec le globe de la Lune, est contenue.' This is rather a vague translation of Copernicus' 'Quartum in ordine annua revolutio locum obtinet, in quo terram cum orbe lunari tanquam epicyclo contineri diximus' (*De revolutionibus orbium coelestium*, 1543, p. 9). It might have suggested Bruno's odd belief that the earth and the moon chase one another around the same epicycle, the point in the centre of which is merely the mark made by the foot of the compass. '. . . volea Torquato che quel punto, che era in mezzo de l'epiciclo nella circonferenza della terza sfera, significasse la terra. . . . Il Nolano se mise a ridere; e dissegli, che quel punto non significava altro, che la pedata del compasso, quando si delineò l'epiciclo della terra e della luna, il quale è tutto uno ed il medesimo. Or, se volete veramente sapere dove è la terra, secondo il senso del Copernico, leggete le sue parole. Lessero e ritrovarno che dicea la terra e la luna essere contenute come da medesimo epiciclo' (*Op. ital.*, vol. I, p. 107; the mistake appears also in the diagram, *ibid.*, p. 106). See my article, p. 151, note 42.

- 93 *Op. cit.*, p. 11.
- 94 *Ibid.*, p. 70.
- 95 He speaks in another of his works (*Mantice*, 1587, p. 7) of 'l'admirable Conte Pic de la Mirandole' and he several times mentions Cardinal Contarini in the *Deux Discours*.
- 96 *Op. ital.*, I, p. 12.
- 97 Pierre Duhem examines many of the propositions of Bruno's *Acro-  
tismus* against the background of Parisian Nominalism in *Études sur  
Léonard de Vinci*, 3<sup>e</sup> série, pp. 227-59. Many anti-Aristotelian  
theses, including an infinity of worlds, were held by John Major, the  
Scottish regent of the Collège de Montaigu in the fifteenth century  
and a man of unimpeachable Catholic orthodoxy. Major was a 'die-  
hard' scholastic who intensely disliked the new grammarian humanist  
studies. Pico della Mirandola, it will be remembered, refused to join  
in the fashionable humanist contempt for Parisian scholasticism; he  
even carried this protest so far as to write himself in Parisian-style  
Latin instead of in the neo-classical style of the humanists. See E.  
Anagnine, *G. Pico della Mirandola*, 1937, pp. 20-1.
- 98 *Op. cit.*, p. 113. He never wearies, he says, of quoting Pythagorean  
opinions which show how 'la purité de Dieu a esté aucunement  
cogneuë depuis autant de temps que la memoire nous peut estre  
estendue.'
- 99 See p. 163.
- 100 *Deux Discours*, p. 5.
- 101 *Op. ital.*, vol. I, pp. 25-6.
- 102 *Ibid.*, pp. 87-8.
- 103 This illustration does not seem to occur in Alexander Aphrodisaeus's  
commentary on the *Meteorologica* and it has not been possible to trace  
it anywhere in his works. The idea was, of course, a commonplace in  
Peripatetic philosophy. (See E. Bevan, *Symbolism and Belief*, 1938, p.  
65.) It is used in the spiritual sense by Dante of the mountain of  
Purgatory which is described as reaching up into an undisturbed  
region (*Purgatorio*, XXI, 46-50).
- 104 'There were some now in Oxford, Fellows of Colleges, or at least  
Masters of Art, who were encouraged to go forward in their Presby-  
tery by certain Scotch Ministers who were here at the Act last year  
[i.e., in 1584] and had several meetings about the promotion of  
their cause. The chief matter which they aimed at, was to draw  
the said Scholars over to observe some certain Decrees and  
Discipline. . . . One Edw. Gellibrand . . . was as it seems to me  
the chief of this party in Oxford (there was also Mr. West and Mr.  
Browne) labouring not a little to obtain the scholars to be of his  
party' (Anthony à Wood, *History and Antiquities of the University of  
Oxford*, ed. J. Gutch, vol. II, Part I (*Annals*), pp. 224-5).



105 See p. 157.

106 He does, in fact, condemn mathematical or scientific pedantry, as well as grammarian pedantry. The 'study of perspective and optics' is useless for determining the size of luminous bodies (*Op. ital.*, vol. I, p. 9). He urges the geometricians to throw away their science for some other contemplative method (*Ibid.*, vol. II, p. 171). L. Olschki (*Giordano Bruno*, 1937, p. 71) points out that his contempt for mathematics is as great as his contempt for pedants. His total lack of interest in the mathematical side of the Copernican theory is sufficiently demonstrated by the astonishing mistake made in the *Cena*.

His dislike of Ramist anti-Aristotelianism, which was rational and mathematical in character, is thus perfectly in keeping with his attitude as a whole.

107 *Documenti*, pp. 121-2.

108 *Documenti*, p. 190. It is not known what these propositions were. The problems connected with Bruno's trial cannot be settled until a much fuller historical approach has been made to the policy of the Papacy in the years preceding it. I only indicate here the lines on which a solution might be possible. It seems to me that Bruno had definite views of his own as to which were his 'errors', amongst which he included his hesitations as to the sense in which he understood the Incarnation (*Documenti*, pp. 99-102). He made a general recantation of all such errors (p. 123). But he was very firm that his views on the Mass were not an error (p. 102). The Copernican theory, with the implications which he attached to it, probably was, therefore, one of the points which he refused to recant.

One begins to wonder whether the use which Bruno had made of Copernicanism affected Galileo's case. In the *Sistema del Mondo* Galileo makes the rather strange remark that Italians by their support of anti-Peripatetic philosophy 'incur the censure of Illiterates, and attract the laughter of Forreigners, and especially such who are separated from our religion' (quoted from the translation by T. Salusbury, *Mathematical Collections and Translations*, tome I, p. 252).

109 See L. Pastor, *History of the Popes*, translated R. F. Kerr, vol. XIX, pp. 520-59.

110 *Documenti*, p. 66. He was closely questioned on these points; *ibid.*, pp. 109-10.

111 *Deploration de la mort du Roy, Henry III, & du scandale qu'en a l'Eglise*, 1589.

112 *Ibid.*, Sig. B 1.

113 On his return to France from England he took steps towards returning to the Church, wishing to be received again into communion without being obliged to rejoin his order (he was an ex-Dominican) but this was not permitted (*Documenti*, pp. 104, 132-3).

- 114 He was questioned as to whether he had ever taken part in Protestant rites (*Documenti*, pp. 116-17).  
 115 *Op. ital.*, vol. I, p. 54.

5 THE EMBLEMATIC CONCEIT IN GIORDANO BRUNO'S  
*DE GLI EROICI FURORI* AND IN THE  
 ELIZABETHAN SONNET SEQUENCES

- 1 The first Elizabethan sequence to be published was Thomas Watson's *Hecatompethia*, 1582. But Sidney's *Astrophel and Stella*, 1591, had so immense an influence on the subsequent sonneteering movement that pride of place rightly belongs to it.  
 2 On the foreign sources of the Elizabethan sonnet see Janet G. Scott's *Les Sonnets Elisabethains*, 1929.  
 3 L. C. John, *The Elizabethan Sonnet Sequences*, 1938.  
 4 L. C. John rightly, in my opinion, makes this claim (*op. cit.*, pp. 3-4).  
 5 Giordano Bruno, *Opere italiane*, ed. G. Gentile, 1925-7, vol. II, pp. 307-519. There is an English translation by L. Williams, *The Heroic Enthusiasts*, 1887-9. (Williams translates the title rather freely; the literal meaning is *On heroic enthusiasms*.)  
 6 *Op. ital.*, vol. II, p. 447; Williams, vol. II, p. 28.  
 7 *Op. ital.*, *loc. cit.*; Williams, *loc. cit.* Quotations are from Williams's version. The following is the Italian original:

Per man d'amor scritto veder potreste  
 Nel volto mio l'istoria di mie pene;  
 Ma tu (perché il tuo orgoglio non si affrene,  
 Ed io infelice eternamente reste)  
 A le palpebre belle a me moleste  
 Asconder fai le luci tant'amene,  
 Ond'il turbato ciel non s'asserene,  
 Né caggian le nemiche ombre funeste.  
 Per la bellezza tua, per l'amor mio,  
 Ch'a quella, benché tanta, è forse uguale,  
 Rendite a la pietà, diva, per Dio.  
 Non prolongar il troppo intenso male,  
 Ch'è del mio tanto amar indegno fio;  
 Non sia tanto rigor con splendor tale.  
 Se, ch'io viva, ti cale,  
 Del grazioso sguardo apri le porte;  
 Mirami, o bella, se vuoi darmi morte.

# NOTES TO PAGES 182-6

- 8 Psalm CXLIII, v. 6, and Psalm CXIX, v. 131. Bruno, of course, quotes the Latin version.
- 9 *Op. ital.*, II, p. 448; Williams, vol. II, p. 29.
- 10 *Op. ital.*, *loc. cit.*; Williams, vol. II, p. 30.
- 11 *Op. ital.*, vol. II, pp. 419-21; Williams, vol. I, pp. 158-62. The imagery of both emblem and poem is related to the description in Virgil of Aeolus tempering the winds in the caverns (*Aeneid*, I, 52-7).
- 12 'What relation has desire with the winds?' asks one of the speakers, and the answer is, 'Whosoever in this present condition aspires, also sighs, and the same breathes; and therefore the vehemence of the aspiration is noted by the hieroglyph of strong breathing' (*Op. ital.*, vol. II, p. 420; Williams, vol. I, p. 160).
- 13 *Op. ital.*, vol. II, p. 339; Williams, vol. I, p. 43.
- 14 *Op. ital.*, vol. II, p. 340; Williams, vol. I, p. 44.
- 15 *Op. ital.*, vol. II, pp. 451-5; Williams, vol. II, pp. 35-40.
- 16 *Op. ital.*, vol. II, pp. 424-6, 458-9; Williams, vol. I, pp. 165-8, vol. II, pp. 44-6.
- 17 *Op. ital.*, vol. II, pp. 309-27. This dedication was omitted from Williams's English version.
- 18 *Ibid.*, p. 309.
- 19 I have suggested elsewhere that it is from the Puritans in England that Bruno appears to be expecting disapproval. See above, pp. 151-79.
- 20 *Op. ital.*, vol. II, p. 314.
- 21 Cf. *Song of Songs*, IV.
- 22 *Op. ital.*, vol. II, pp. 314-15.
- 23 See *Op. ital.*, vol. II, p. 319; *Song of Songs*, II, 10-12. The other two parallels which he mentions (*Op. ital.*, II, p. 318) are between *Song of Songs*, II, 9 (*En ipse stat post parietem nostrum . . .*) which, he says, corresponds to his imagery of Parnassus, the Muses, and the fountain; and *Song of Songs*, I, 5 (*Noli mirari, quia nigra sum . . .*) which corresponds to his description of the civil war which arises in the soul against the determination of the spirit to follow the highest good.
- 24 It does not touch the study of the place of Bruno's images in the history of symbolism as a whole, for an example of which see Panofsky's survey of the *signum triceps* symbol through the ages until its appearance in the *Eroici furori* (E. Panofsky, *Hercules am Scheidewege*, 1930, pp. 1-34).
- 25 See Henry Green, *Andrea Alciati*, 1872, for a bibliography. Green also edited facsimile reproductions of Alciati's emblems: *A. Alciati Emblematum Fontes Quatuor*, 1870; and *A. Alciati Emblematum Flumen Abundans*, 1871.
- 26 For a general survey of the emblem literature, both sixteenth- and seventeenth-century, with illustrations, see Mario Praz, *Studies in Seventeenth-Century Imagery*, 1939.



- 27 For the derivation of Renaissance emblematics from humanist Egyptology see Karl Giehlow, 'Die Hieroglyphenkunde des Humanismus in der Allegorie der Renaissance', *Jahrbuch der kunsthistorischen Sammlungen des allerhöchsten Kaiserhauses*, XXXII, pt I, 1915, and L. Volkmann, *Bilderschriften der Renaissance. Hieroglyphik und Emblematik in ihren Beziehungen und Fortwirkungen*, 1923.
- 28 L. B. Alberti seems to have been one of the first to make systematic translations of medieval symbolism and allegory into the hieroglyphs (see Giehlow, *op. cit.*, pp. 31–4), a task which reached its greatest development in the *Hieroglyphica* (1556) of Pierio Valeriano – a key work in the Renaissance science of emblematics. Bruno is in this tradition in the *Eroici furori* when he transfers the symbolical interpretations of the Canticle into Petrarchan conceits, used as emblems or hieroglyphs. (Bruno's *Mors et vita* emblem was perhaps suggested by Valeriano on 'eyes'; see the *Hieroglyphica*, 1556 edition, Basle, pp. 233–6.)
- 29 The 'emblem' and the 'device' or '*impresa*' are both based on the same symbolic principle, the differences between them being of a technical character. Roughly speaking, the device aims at very economical, compressed statement, whilst the emblem is more of a detailed picture. In the *Eroici furori*, Bruno does not keep very strictly to the technical rules, but most of his figures are more devices than emblems.

- 30 Beato venir men! ché'n lor presenza  
M'è piu caro il morir, che'l viver senza.

Canzone VIII (as numbered in G. Mestica's edition) 'Perché la vita è breve . . .', lines 29–30. In their context, the lines refer to Laura's eyes. For the butterfly and flame image in Petrarch, see Sonetto XVII (in the edition cited), 'Son animali al mondo de si altera. . .'.

- 31 See Praz, *op. cit.*, p. 11.
- 32 It is to be found, for example, in G. Simeoni, *Sentenziose Imprese*, 1560; H. Junius, *Emblemata*, 1565; G. Ruscelli, *Le imprese illustri*, 1566. Maurice Scève used it in conjunction with a sonnet in his *Délie* (1544) (reproduced in the edition by E. Parturier, 1916, p. 189).  
On this image, see Praz, *op. cit.*, pp. 84–5, note 2.
- 33 *Op. ital.*, vol. II, pp. 399–401; Williams, vol. I, pp. 128–30.
- 34 Bruno's emblems are generally more original than this. For another example of his use of a well-known one, in a modified form, see Praz, *op. cit.*, p. 191.
- 35 *Op. ital.*, vol. II, pp. 400–1; Williams, vol. I, p. 130. The meaning is that of voluntary mystical death in the divine splendour.

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- 36 Tien' pur li occhi, come aquila, in quel sole;  
Parte dà' orecchi a queste mie parole.
- (Canzone XXV, 'Tacer non posso, e temo non adopre', lines 59-60.)
- 37 See, for example, his interpretation of the butterfly and flame device (*Imprese illustri*, ed. cit., p. 494).
- 38 On the seventeenth-century 'profane' and 'sacred' love emblems see Praz, *op. cit.*, pp. 75-153.
- 39 See above, pp. 184-5.
- 40 On these see Praz, *op. cit.*, pp. 122-53.
- 41 B. van Haeften, *Schola cordis sive aversi a Deo cordis ad eundem reductio et instructio*, 1635. I have not been able to see this work, and the reproductions of the emblems of the pierced and winged hearts (see Plates 19d and 20a) are taken from the English translation by C. Harvey.
- 42 *Op. ital.*, vol. II, pp. 377-8; Williams, vol. I, pp. 94-6.
- 43 Plato, *Phaedrus*, 251.
- 44 The plates for *Pia desideria* were designed by Boetius à Bolswert and were amongst those used by Francis Quarles as illustrations of his English verses - the famous *Emblems* of Quarles, first published in 1635. See Praz, *op. cit.*, pp. 143 ff. and G. S. Haight, 'The Sources of Quarles' Emblems', *Transactions of the Bibliographical Society*, XVI, 1935-6, pp. 188-209.
- 45 See pp. 180-4.
- 46 This connection was inherent from the beginning of both fashions. As Praz says (*op. cit.*, p. 11) 'emblems and conceits are fruits of the same tree'. This reflects that organic link between the arts of painting and poetry which was one of the deep-seated convictions of the Renaissance and to which Sir Philip Sidney gives expression when he calls poetry a 'speaking picture' (Sidney's *Defense of Poesy*, ed. A. C. Cook, 1890, p. 9; the editor of this edition suggested the probable influence of the *Eroici furori* upon Sidney. See his introduction, p. xiii.)
- 47 E. Tesauro, *Il Cannochiale Aristotelico*, 1655, p. 310. Quoted by Praz, *op. cit.*, p. 14.
- 48 To Bruno, the philosopher, the painter, and the poet, are (like Shakespeare's lunatic, lover, and poet) 'of imagination all compact'. Poets and painters are both divinely inspired in thinking out something which is presented to them; therefore 'philosophers are in some measure painters and poets; poets are painters and philosophers; and painters are philosophers and poets. And therefore true poets, true painters, and true philosophers love and admire one another; for he is no philosopher who does not also compose and paint' (from the *Explicatio triginta sigillorum*, the work dedicated by Bruno to the Vice

Chancellor of Oxford University soon after his arrival in England; see G. Bruno, *Op. lat. conscripta*, ed. F. Tocco and H. Vitelli, 1890, vol. II, pt 2, p. 133).

49 The underlying religious meanings of the metaphysics of this dialogue have been studied in my article above cited.

50 *Op. ital.*, vol. I, p. 26.

51 English from Sir John Harington's translation.

52 Bruno associates Copernicanism with the concept of the infinity of the universe, a question upon which Copernicus himself was non-committal.

Bruno's dialogues show marked traces of the Renaissance fashion (followed, for example, by Lorenzo de' Medici and Pico della Mirandola) of publishing lyrics with philosophical commentaries.

53 The text describes the ship as 'AB', mentions a point 'C' on the bank, a point 'E' at the top of the mast and a point 'D' at its base (*Op. ital.*, I, pp. 88-9). None of this lettering appears in the woodcut.

54 The commentary by Claude Mignault was printed in many of the editions of the emblems from 1571 onwards. (Ed. used, A. Alciati, *Omnia emblemata*, 1574, pp. 148-50.)

55 On Castor and Pollux as saviours at sea, see W. H. Roscher, *Real-Encyclopädie der classischen Altertums-Wissenschaft*, vol. 5, pt I, 1096-7 (article 'Dioskuren').

56 G. Ruscelli, *Le imprese illustri*, 1566, pp. 302-11. Ruscelli in his commentary relates the Castor and Pollux story to the light called by mariners St Ermo's or St Elmo's fire, and which also presages tranquillity after storm. The kings of France are called by one writer 'les Saints Elmes de la Religion Catholique' (A. Favyn, *Theatre d'honneur et de chevalerie*, 1620, p. 287). The *impresa* of a ship with St Ermo's fire shining on its sail-yards was raised at the canonization of St Charles Borromeo (F. Picinelli, *Mondo simbolico*, 1769, p. 92).

57 If the woodcut is an emblem, it must be one of the first of its kind to appear in England. The earlier English books on emblematics were not illustrated owing to the low state of the arts of wood-cutting and engraving in this country. (We have seen that the *Eroici furori* was not illustrated, and neither were the works of Daniel and Fraunce, referred to later, see p. 200). The first illustrated English emblem book was Geoffrey Whitney's *Choice of Emblemes*, 1586 (which, by the way, contains the emblem of the ship and the two stars, see the reprint edited by H. Green, 1866, p. 137); this is two years later than the *Cena*, and it was printed abroad, at Plantin's press in Antwerp. The earliest illustrated emblem book to be printed in England seems to have been Henry Peacham's *Minerva Britannia*, 1612. (On this question see Praz, *op. cit.*, pp. 143-4). The printer of the *Cena de le ceneri* (and of the other books which Bruno published



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in England) is now thought to have been John Charlewood.

- 58 An article on the resemblances between Quarles's habits of thought and those of the metaphysical poets, such as Chapman and Donne, suggests that 'It is plain that Quarles was doing in the market-place what other metaphysicals were doing for a more exacting audience' (T. O. Beachcroft, 'Quarles and the Emblem Habit', *Dublin Review*, Jan.-March, 1931, p. 94). This remark seems almost to be feeling after the missing link of the *Eroici furori*, which is an emblem book eminently suited to the most exacting audience of metaphysical poets, and which yet can be connected with a trend which eventually produced those intense but somewhat utilitarian Jesuit emblem books whence Quarles derived his plates.

- 59 *Op. ital.*, vol. I, p. 54.

- 60 See John, *op. cit.*, pp. 188 ff. for summaries of arguments concerning dating.

The so-called 'political sonnet' (no. XXX) has often been pressed into service as an aid to dating. The allusions in this sonnet to Poland and to the three parties in France (Catholics, Huguenots and 'Politiques') would fit in well with Bruno's mission to England in the 'politique' interest from Henri III of France, who had also been king of Poland, as recalled in his famous device (see above pp. 163 ff.). There is an allusion to a very famous device, that of the crescent moon with the motto *Donec impleat orbem*, in the opening lines of this sonnet.

- 61 This identification, long conjectured, is now confirmed from a contemporary manuscript. See Ruth Hughey, 'The Harington Manuscript at Arundel Castle and Related Documents', *Library*, XV, 1935, pp. 388-444; and her edition of the MS., 1960.
- 62 *Op. ital.*, vol. II, pp. 316-17.
- 63 *Ibid.*, p. 330; Williams, vol. I, p. 171.
- 64 This dedication is reprinted in the Nonesuch Press edition of Florio's translation of Montaigne's *Essays* (1603), ed. J. I. M. Stewart, 1931, vol. II, pp. 564-8.

The italicized words are a literal translation from the dedication of the *Furori*; 'dove si raggionasse de tutto il sesso femminile, non si deve né puo intendere de alcune vostre, che non denno esser stimate parte di quel sesso; perche *non son femine, non son donne, ma, in similitudine di quelle, son nimfe, son dive, son di sustanza celeste*' (*Op. ital.*, vol. II, p. 317).

- 65 That Gwinne's sonnet is a mosaic of phrases from the *Astrophel and Stella* sequence has been proved in detail by Hoyt H. Hudson, 'Penelope Devereux as Sidney's Stella', *Huntington Library Bulletin*, no. 7, April 1935, pp. 89-129.
- 66 They accompany Bruno to the Supper at Greville's house. See *Op. ital.*, vol. I, pp. 41, 423.

- 67 Other evidence to this effect could be gathered from Florio's *Second Fruits* (1591), the last dialogue of which is full of allusions to Bruno's 'anti-Petrarchist' arguments and contains a quotation from Sidney's *Arcadia*. See my *John Florio*, 1934, pp. 118–23.
- 68 Many of these sonnets may well have been written before the *Furori*. The importance of the latter for explaining the former does not necessitate proving that the sonnets came after the *Furori* in order to prove its influence upon them. The point is that the *Furori* comes out of Sidney's atmosphere at a time when he had either written or was writing the poetry and therefore is invaluable as a commentary upon it.
- 69 That this suggestion must be taken seriously is shown by Florio's attitude. Florio would not have quoted the *Eroici furori* to Lady Rich if the 'anti-Petrarchism' of that work had applied to 'Stella'.
- 70 *Astrophel and Stella*, sonnet XV. Quoted from *Elizabethan Sonnets*, ed. Sidney Lee, 1904, vol. I, p. 18.
- 71 Sonnet I, line 14; *Elizabethan Sonnets*, vol. I, p. 11.
- 72 'No other sonnet-cycle is so permeated with the concept of the power of the lady's eye as the giver of light as is Sidney's *Astrophel and Stella*, literally star-lover and star. It gives the cycle much of its unity' (John, *op. cit.*, p. 152).
- 73 Sonnet XLVIII; *Elizabethan Sonnets*, vol. I, p. 35.
- 74 Sonnet XLII; *Elizabethan Sonnets*, vol. I, p. 32.
- 75 Sonnet XLIV, line 6; *Elizabethan Sonnets*, vol. I, p. 33.
- 76 See p. 182.
- 77 Sonnet XLV, lines 1–2; *Elizabethan Sonnets*, *loc. cit.*
- 78 See p. 181.
- 79 See p. 183.
- 80 See p. 182.
- 81 See, for example, sonnet XLVII (*Elizabethan Sonnets*, I, p. 34), where the rays from Stella's eyes are described as 'black beams' (l. 2), and although she still represents Beauty it is apparently now Beauty divorced from Virtue (ll. 9–11) and therefore to be resisted. Yet in the sonnets which we have quoted, and in many others, Stella represents Virtue equally with Beauty.  
This side of the problem is given prominence by the printing in modern editions of the two 'renunciation' sonnets as the last sonnets of the sequence. This gives the impression that Sidney's last word is the renunciation of Stella for higher things. These sonnets first appeared in the 1598 edition of *Astrophel and Stella*, and we do not know in what order in the sequence Sidney himself would have placed them.
- 82 Sonnet XXVIII, lines 1–8; *Elizabethan Sonnets*, vol. I, p. 25.
- 83 The passage is quoted above, p. 184.

- 84 The piratical publisher who printed the first edition of *Astrophel and Stella* in 1591 described it, not as a set of poems, but as a 'famous device' (see Sidney, *Works*, ed. A. Feuillerat, II, p. 369). The minds of contemporaries must have been prepared for the study of this 'famous device' by the works on emblematics by Daniel, Bruno, and Fraunce which had been emanating from Sidney's circle for several years before its publication.

A portrait of Sidney, painted whilst Bruno was in England, shows a device in the background, and the *Eroici furori* has been suggested as a possible source for some of the Apollo symbolism on the shield (see E. M. Denkinger, 'The Impresa Portrait of Sir Philip Sidney in the National Portrait Gallery', *Publications of the Modern Language Association of America*, XLVII, 1932, p. 29, note 54).

- 85 Paolo Giovio, *Dialogo delle imprese militari e amorose*, 1555.  
 86 Samuel Daniel, *The Worthy Tract of Paulus Iovius*, 1585 (see G. R. Redgrave, 'Daniel and the Emblem Literature', *Transactions of the Bibliographical Society*, XI, 1912, pp. 39-58).  
 87 Printed in A. B. Grosart's edition of Daniel's *Works*, vol. IV, pp. 6 ff.  
 88 These include Valeriano, Contile, Ruscelli, Domenichi, Paradin, Simeoni.  
 89 'You [he is addressing Daniel] cannot forget that which *Nolanus*, that man of infinite titles among other phantasticall toyes, truely noted by chaunce in our Schooles, that by the helpe of translations, al sciences had their offspring' (Daniel, *Works*, ed. cit., vol. IV, p. 7).

It would be unwise to assume complete lack of sympathy with Bruno from this apparently rather slighting allusion. Like Bruno himself, 'N.W.' seems to fear 'the censors'. He urges Daniel not to smother his sweet inventions from fear of the censors, and he hopes that Sir Edward Dymoke, the Queen's champion, will protect him from the possible wrath of 'old Academicks'. The whole preface may have some covert connection with Bruno's quarrel with the Oxford doctors.

- 90 The name recalls Maurice Scève's *Delie objet de plus haulte vertu* (1544), a French sonnet sequence with which emblems are mingled.  
 91 *Elizabethan Sonnets*, vol. II, p. 123. For the earliest version of the text see Daniel's *Poems and a Defence of Ryme*, ed. A. C. Sprague, 1930, p. 80.  
 92 See p. 195. Such 'divinizing' of women is related to the Ficinian conception of ideal love (the classic exposition of which is Ficino's commentary on Plato's *Symposium*).  
 93 *Elizabethan Sonnets*, vol. II, p. 121. The sonnet of which this is the fourth line first appeared with Sidney's *Astrophel and Stella*.  
 94 *Elizabethan Sonnets*, vol. II, p. 118. An alternative reading is 'how cares have tilled deep furrows'.



- 95 *Elizabethan Sonnets*, vol. II, p. 128.
- 96 Daniel makes very interesting uses of other images also to be found in the *Eroici furori* but which we have not attempted to study in this article – notably the 'Actæon' image.
- 97 *Op. ital.*, vol. I, pp. 7, 39-40.
- 98 The *Caelica* sequence first appeared in the volume entitled *Certaine Learned and Elegant Workes of the Right Honourable Fulke Lord Brooke, Written in his Youth and familiar Exercise with Sir Philip Sidney*, 1633.
- 99 *Caelica*, sonnet VII. Quoted from Fulke Greville, *Poems and Dramas*, ed. G. Bullough, 1938, vol. II, p. 76. The poem possibly alludes to Aristotle's 'prime mover' who is himself unmoved.
- 100 *Op. ital.*, vol. I, pp. 475-85; Williams, vol. II, pp. 70-87. Cf. also Shakespeare, *Sonnets* 46 and 47.
- 101 *Caelica*, sonnet VIII; *ed. cit.*, p. 77.
- 102 *Caelica*, sonnet IV, ll. 9-15; *ed. cit.*, p. 75.
- 103 Michael Drayton, *Ideas Mirrour*, 1594, dedicatory sonnet to Anthony Cooke (*Works*, ed. J. W. Hebel, I, p. 96).
- 104 *Ideas Mirrour*, Amour 26; *Works*, *ed. cit.*, vol. I, p. 111.
- 105 *Works*, *ed. cit.*, vol. I, pp. 11-18.
- 106 He says in the dedicatory sonnet that *Ideas Mirrour* (published 1594) had been written some time ago.
- 107 'Petrarchism' and 'Anti-Petrarchism' as used by Bruno and by these English poets would seem to correspond to the 'Eros' and 'Anteros' principles, the tension between which is present as a theme of the love emblems from Alciati onwards. (See for example Alciati's 110th emblem, 'Αντέρωσ, 'Amor virtutis alium Cupidinem superans', reproduced by Praz, *op. cit.*, p. 95, from which Vaenius' martyrdom emblem (Pl. 18c) seems to derive, though with the Lady in the place of Anteros, as in Sidney's and Drayton's poems).  
It may be observed that 'anti-Petrarchism' could derive a sanction from Petrarch himself, who in his *Secretum*, an imaginary dialogue between Saint Augustine and himself, puts the anti-Petrarchist arguments into the mouth of the Saint and allows him to gain the victory over Petrarch. See W. H. Draper, *Petrarch's Secret* (translation of the *Secretum*), 1911, pp. 113 ff.
- 108 See the two sonnets quoted above, pp. 197 f.
- 109 The difference is, I think, a period difference, as well as the technical one of difference between 'device' and 'emblem'.
- 110 *Ideas Mirrour*, Amour 22; Drayton, *Works*, *ed. cit.*, vol. I, pp. 109-10.
- 111 This was the device of Curzio Gonzaga. See Ruscelli, *ed. cit.*, p. 451. It is quoted by 'N.W.' in his preface to Daniel's translation of Jovius: 'Tell me how you like this *Heroycail Impresa* of Curtius Gonzaga. . . . An *Egle* flying on high against the Sunne, with this word *pur*

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*che*, a parte of that verse of *Petrarche*, *Pur che ne godan gli occhi, ardan le piume*. For that which delighteth my eyes burneth my fethers' (Daniel, *Works*, ed. Grosart, vol. IV, p. 9). Daniel has translated rather freely this quotation, which I have not been able to trace in Petrarch.

112 See p. 187 and Pl. 18a.

113 See, for example, the passage in the sixth song beginning:

Heere then I cannot chuse but bitterlie exlame  
Against those fooles that all Antiquitie defame,  
Because they have found out, some credulous Ages layd  
Slight fictions with the truth. . . .

(*Works*, ed. cit., vol. IV, p. 118).

114 See 'Giordano Bruno's Conflict with Oxford', pp. 134-50 and 'The Religious Policy of Giordano Bruno', pp. 151-79, for proofs that Bruno was far more out of sympathy with modern Tudor England than with the English medieval tradition.

115 We have omitted the name of Shakespeare from this study; but what might turn out to be a significant line of approach to Shakespeare's sonnets has been suggested by Praz (*op. cit.*, pp. 104-7) who points out that Vaenius dedicated an edition of his *Amorum emblemata* (1608) containing an English text to William, Earl of Pembroke and Philip, Earl of Montgomery. He notes certain resemblances between the themes of the lines of verse which preface this emblem book and those of Shakespeare's sonnets, which were first published in 1609.

116 Bruno, coming as he does from the atmosphere of the French court (see 'The Religious Policy of Giordano Bruno', pp. 163-75), represents that French form of the Italian influence which is recognized as the immediate inspiration of the English Petrarchists who borrow so largely from the French 'Pléiade'.

## 6 RENAISSANCE PHILOSOPHERS IN ELIZABETHAN ENGLAND: JOHN DEE AND GIORDANO BRUNO

1 *Private Diary of Dr. John Dee*, ed. J. O. Halliwell, Camden Society, 1842, p. 20; F. A. Yates, *Giordano Bruno and the Hermetic Tradition*, London, 1964, p. 206.

2 Yates, *Bruno*, pp. 313 ff.; R. J. W. Evans, *Rudolf II and his World*, Oxford, 1973, pp. 228 ff.

3 Evans, *Rudolf*, pp. 225 ff.

4 Peter French, *John Dee*, London, 1972, pp. 122-5.

- 5 Yates, *Bruno*, pp. 338 ff.
- 6 F. A. Yates, *The Occult Philosophy in the Elizabethan Age*, London, 1979, pp. 61 ff.
- 7 *Ibid.*, pp. 89 ff.
- 8 Frank Baron, *Doctor Faustus from History to Legend*, Munich, 1978, pp. 3 ff.
- 9 Baron, *Faustus*, pp. 70 ff.
- 10 Yates, *Occult Philosophy*, pp. 37 ff.
- 11 *Ibid.*, pp. 81 ff.
- 12 *Ibid.*, pp. 79 ff.
- 13 *Ibid.*, part I. For recent studies in French on Christian Cabala see *Kabbalistes Chrétiens* (in the series *Cahiers de l'Hermétisme*), edited by Antoine Faivre and Frederick Tristan, Paris, Albin Michel, 1979. This volume includes a French translation of Gershom Scholem's study of the beginning of Christian Cabala, a note on the forthcoming study of Pico and Christian Cabala by Chaim Wirszubski, and essays on Christian Cabalists of Germany, France, England, including one on Agrippa.
- 14 Yates, *Occult Philosophy*, p. 46.
- 15 J. Lewis McIntyre, London, 1903; Yates, *Bruno*, pp. 131, 148-9. The similarity between the world views of Agrippa and Bruno was noted by Ernst Cassirer.
- 16 Charles Nauert, *Agrippa and the Crisis of Renaissance Thought*, Urbana, 1965, pp. 194 ff.
- 17 Bruno, *Opere latine*, ed. F. Fiorentino and others, vol. II (ii), pp. 180 ff. Compare Agrippa, *Occulta philosophia*, ed. K. A. Nowotny, Graz, 1967, I, pp. 4-5; Yates, *Bruno*, pp. 271-3.
- 18 Bruno, *Cena de le ceneri*, dialogue I, translated by E. A. Gosselin and Lawrence S. Lerner as *The Ash Wednesday Supper*, London, 1977, p. 90.
- 19 The magic images in Bruno's *De umbris idearum* (*Op. lat.*, vol. II (i)), pp. 133 ff., are copied from Agrippa, *De occulta philosophia*, vol. II, pp. 37 ff. See Yates, *Bruno*, pp. 193 ff. Other references for Bruno's use of Agrippa's magic are given in Yates, *Bruno*, pp. 201, 239-40, 243, 250 ff., etc.
- 20 Yates, *Occult Philosophy*, pp. 42-3.
- 21 Philip Sidney, *A Defence of Poetry*, ed. J. A. van Dorsten, Oxford, 1966, pp. 49-50.
- 22 Yates, *Occult Philosophy*, p. 44.
- 23 *Ibid.*, pp. 24, 47, etc.
- 24 On Bruno's preference for 'Egyptian' (i.e. Hermetic) wisdom rather than Jewish or Christian, see *Lo spaccio della bestia trionfante*, dialogue 3 (*Dialoghi italiani*, ed. G. Aquilecchia, 1957), pp. 799-80; *De umbra idearum* (*Op. lat.*, vol. II (i)), pp. 1 ff.; *Cabala del Cavallo Pegaseo* and *L'Asino Cillenico* (*Dial. ital.*) pp. 865 ff.; *De magia* and *De vinculis in*



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*genere* (*Op. lat.*, vol. III), pp. 395 ff., 633 ff.; Yates, *Bruno*, pp. 192-5, 223, 258-66, etc.

These attitudes are also clearly discernible in the *Cena de le ceneri* in which the rising Copernican sun becomes emblematic of the new dawn of Egyptian Truth: Yates, *Bruno*, pp. 238 ff.; Gosselin and Lerner, introduction to *The Ash Wednesday Supper*, pp. 50-1.

- 25 On Agrippa's aim of using Cabala as protection for Hermetic magic, see Yates, *Occult Philosophy*, pp. 46-7. Agrippa was following Pico and Reuchlin in this Christianized use of Cabala. Bruno, by rejecting the Christian Cabalist protection, could lay himself open to the charge of being a 'black' magician: Yates, *Bruno*, pp. 322-4.

- 26 *Bruno*, pp. 313 ff.

- 27 On Reuchlin's aim of providing a more 'powerful' philosophy to replace scholasticism, see the article by Charles Zika, 'Reuchlin's *De verbo mirifico* and the Magic Debate of the late Fifteenth Century', *Journal of the Warburg and Courtauld Institutes*, XXIX, 1976, pp. 104-38. Agrippa's *De occulta philosophia* endeavours to provide the guide to such a philosophy.

- 28 On Bruno's defence of the learning of medieval Oxford, and the appeal of this attitude for Dee and the Sidney circle, see 'Giordano Bruno's Conflict with Oxford' above, pp. 135 ff.

Nicholas Clulee has recently emphasized the importance of the medieval influence on Dee's science; see Nicholas Clulee, 'Astrology, Magic and Optics: Facets of John Dee's Early Natural Philosophy', *Renaissance Quarterly*, XXX, 1977, pp. 632-80.

- 29 Dee had a copy of the book of Copernicus in his library. Yates, *Theatre of the World*, London, 1969, p. 17.

- 30 The problems about Bruno's Copernicanism, which I raised in *Bruno*, pp. 241 ff., have now been admirably discussed and clarified by Gosselin and Lerner, *The Ash Wednesday Supper*. This is, so far, the best and most understanding English translation of one of Bruno's Italian works.

- 31 Gosselin and Lerner, *The Ash Wednesday Supper*, pp. 175-93. Bruno would have despised their objections as 'merely mathematical'. Yates, *Bruno*, pp. 241 ff.

- 32 Yates, *Bruno*, pp. 207 ff.; *The Ash Wednesday Supper*, p. 197.

- 33 'The Emblematic Conceit in Giordano Bruno's *De gli eroici furori* and in the Elizabethan Sonnet Sequences' above, pp. 180-209. Bruno's use of Petrarchan conceits as emblems with profoundly religious meanings (such as the Cabalistic 'death of the kiss') is one of the most striking of his insights. It connects with his emblematic use of heliocentricity.

- 34 Yates, *Astraea: The Imperial Theme in the Sixteenth Century*, London, 1975, p. 110.

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